



P. M. WISE.
LIBRARY.

No.

Harvey Cushing/John Hay Whitney
Medical Library
Historical Library



Yale University
Gift of Stanley W. Jackson, M.D.

7/16/19
73

INSANITY
IN
ANCIENT AND MODERN LIFE.



INSANITY
IN
ANCIENT AND MODERN LIFE,
WITH CHAPTERS
ON ITS PREVENTION.

BY
DANIEL HACK TUKE, M.D.,
FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS, LONDON.

*“The dispute, then, is not about any common matter, but about being
mad or not mad.”—EPICTETUS.*

London :
MACMILLAN AND CO.
1878.

[The Right of Translation and Reproduction is Reserved.]

LONDON:
R. CLAY, SONS, AND TAYLOR,
BREAD STREET HILL.



19th
Cent
RC 601
1878T

TO THE
HON. SIR EDWARD FRY,
ONE OF THE JUDGES OF THE HIGH COURT OF JUSTICE,
THIS VOLUME IS INSCRIBED
BY HIS FRIEND,
THE AUTHOR.

PREFACE.

A REMARKABLE feature of the present day is the interest felt by the public at large in questions relative to insanity. So far from its being confined to the Medical Profession, legislators, lawyers, clergymen, sociologists, metaphysicians, have their attention forcibly drawn to the subject, and are keenly interested in it. The same may be said of many of those whose friends suffer from mental derangement.

To those also who may reasonably suspect that they have the seeds of madness sown in their own constitution, or are conscious of a tendency to irregular mental action, the matter treated of in the following pages possesses, if a painful, surely a practical importance. I hope that the action of individuals on themselves, with a view of preventing attacks of mental disorder, will be rendered more definite, and therefore more successful, by following the indications pointed out in the chapters on the Prevention of Insanity.

To this subject I briefly adverted in a recent number of *Macmillan* (of which Chapters V. and VI. are an expansion), but in the succeeding portion of the work I have entered at some length into the individual management called for, when the first symptoms display themselves, desiring to offer in these chapters, hints calculated, if adopted, to ward off attacks of threatened insanity.

Of the various social evils which present themselves in our age, those connected with the genesis of insanity are, it must be admitted, deserving of the consideration of all who care for their race, and wish to lessen the sum of human misery. I trust that the facts contained in this volume will tend to stimulate all social reformers in their great, and often discouraging, labours, whether carried on among the working or the higher classes, so it be not done in a narrow fanatical spirit, in other words, not judgingly, but with judgment.

D. HACK TUKE.

5, CHARLOTTE ST,
BEDFORD SQ., W.C.

March, 1878.

CONTENTS.

PREFACE	PAGE vii
-------------------	-------------

PART I.

ON THE PREVALENCE OF THE CAUSES OF INSANITY AMONG THE NATIONS OF ANTIQUITY.

CHAPTER I.

IN PREHISTORIC TIMES.

Relative Extent of the Causes of Insanity in Antiquity and Modern Civilisation—Main Causes of Mental Disorder, including the Influence of Civilisation—Prehistoric Habits of Life—Intoxication—Defective Nourishment—Inter- marriage—Moral Causes	I
---	---

CHAPTER II.

AMONG THE JEWS AND EGYPTIANS.

Society depicted in Patriarchal Times and among the Jews— Intoxication—Defective Nourishment—Moral Causes . . .	21
Egyptian Civilisation—Intoxication—Poverty—Causes chiefly Moral—Intellectual Strain—Summary	28

CONTENTS.

CHAPTER III.

AMONG THE GREEKS.

	PAGE
Homeric Period—Historic Period—Age of Pericles—Intoxication—Defective Nourishment—Moral Causes—Intellectual Strain—Summary	42

CHAPTER IV.

AMONG THE ROMANS.

Importance of distinguishing among the Romans as among the Greeks, the Early and Later Period of their History—Habits in regard to Intemperance—Poverty and Wealth Combined—Moral Causes—School Learning	66
<i>Résumé</i>	81

PART II.

INSANITY IN RELATION TO MODERN LIFE.

CHAPTER V.

INSANITY CHIEFLY IN RELATION TO THE WORKING CLASSES.

Modern Civilised Life—Dogmatic Assertions not warranted by Facts—Relative Amount of Insanity among the Working and Higher Classes—Important Distinction between a Degraded Englishman and a Savage—Manufacturing and Agricultural Districts—Intemperance—Defective Nourishment—Factory Children—Insanity prevalent among the Criminal Classes	87
---	----

CHAPTER VI.

INSANITY CHIEFLY IN RELATION TO THE HIGHER CLASSES.

	PAGE
Prevalence of Moral Causes among the Upper Classes—	
Private Asylum Figures—Over-work—Civilisation and	
Mental Strain—Under-work—Cramming at Schools,	
&c.—Singular Views held by some as to Skull-growth	
—Examinations—Literary Men—Leland—Collins—	
Mental Stagnation : Its Varieties—Religious Excitement	
—Spiritualism—Enumeration and Summary of Causes ;	
Lessons which they Teach	103

CHAPTER VII.

FACTS AND FIGURES IN REGARD TO THE INCREASE OF
INSANITY.

Question of Increase of Insanity—Fallacies—Distinction be-	
tween Occurring and Existing Insanity—Rise in Number	
of Pauper Insane—Admissions of Pauper and Private	
Patients into Asylums since 1859—Causes of Increase—	
Rise in Number remaining in Asylums since 1859—Crums	
of Comfort—Decline in <i>Rate</i> of Increase in the Total	
Number of Insane, and in Certified Lunatics—Proportionate	
Increase in the Pauper and Private Classes—Increase	
of the latter as well as the former, without the same	
Explanation being practicable—Distribution of Insane,	
Jan. 1, 1877—Summary	129

PART III.

*AUTO-PROPHYLAXIS, OR SELF-PREVENTION OF
INSANITY.*

CHAPTER VIII.

GENERAL TRUTHS.

Two Divisions of Preventive Psychological Medicine—Auto-
prophylaxis—Insanity dreaded by all, therefore claims the
Attention of all—Acute sufferings of Insane—Necessity of
prompt Care—The Physician must supplement Moral
Teaching—Virtue not a Security against the Disease—The
Penalty of a Broken Law, Individual or Ancestral—Effect
of yielding to Vice—Fundamental Principle of the Mind's
Dependence on the Brain—Necessity of Obeying the Laws
which bring them into Relation—Man's Compound Nature
—Trial Epochs of Life—Power of the Will in Resisting
Insanity—Conscious Automata—Involuntary Thoughts—
Illustration

CHAPTER IX.

WARNINGS OF DANGER.

Inability to Sleep—Night Horrors—Mechanism of Sleep—
Mental Hypnotics—Sensations referable to the Head—
Inability for Mental Work—Illustrations from Life—
Emotional Warnings—Depression and Exaltation—Irrit-
ability—Nervous Dread—Irresolution—Temperaments
predisposing to Insanity—How distinguished—The Feeble-

	PAGE
minded Temperament—The Melancholy and Nervous Temperament—The Excitable and Choleric Temperament —The Depraved Temperament — The Well-balanced Mind	157

CHAPTER X.

IMPORTANCE OF CHEERFULNESS, SUFFICIENT MENTAL REST, &c.

School of Salerno—Drs. Merriman, Quiet, and Diet—First Canon of Salerno : “A Cheerful Mind” — Plato — St. James—Evil of Solitude—Dangerous Folly of Extremes— Asceticism and Dissipation—Exclusive Religious Ideas— Mysticism—Parallel Danger in Art	178
Second Canon of Salerno : “Rest” or Quiet—Life at High Pressure—The Gospel of Speed a Mistake—Periodical Relaxation—Mr. Gladstone on Mental Excess—Equa- nimity of Temper—Action of Life analogous to that of the Heart—Health may be too much considered—Dr. Andrew Reed’s Resolutions—Variety of Mental Food requisite— Literary Occupation—Mandates of Conscience—Physical Exercise—Parents and Children—An Ascetic Education not the Danger of the Age—“Young America”—Defec- tive Education not peculiar to America	182

CHAPTER XI.

IMPORTANCE OF DIET.

Third Canon of Salernian School : “Moderate Diet”—Tem- perance—Increased Use of Wine—Results in France— The same in America, according to Dr. Jarvis—Opinion of Dr. Edward Parkes on Alcohol as a Dietetic—Hesiod
--

—Lunacy Commissioners on the Prevention of Insanity— Removal of Causes of Insanity among the Poor—Canon Farrar—Mr. Cross—General Remarks on Foods—In- sufficient and Inappropriate Diet—Over-eating	PAGE 200
--	-------------

CHAPTER XII.

CONCLUSION.

Supplementary Psychological Axioms—Duty of the Individual to himself and to his Family—Concluding Counsel . . .	214
APPENDICES	223

ADDENDUM TO PAGE 89.

Adopting the return of lunatics and idiots in the Census of 1871, instead of that of the Lunacy Commissioners, the proportion to the population would, in that year, be 1 in 300.

PART I.

*ON THE PREVALENCE OF THE CAUSES OF
INSANITY AMONG THE NATIONS OF ANTIQUITY.*

CHAPTER I.

IN PREHISTORIC TIMES.

THE relative extent of the causes of mental disease in ancient and modern society is a problem of profound interest. The study of it is one mode of approaching the consideration of a most important question, not merely for medical psychologists, but, in consequence of its ultimate bearing upon the prevention of insanity, for the general reader also—whether among the peoples of the highly civilised portions of the globe at the present day, more persons do or do not become insane than among the nations of antiquity? The inquiry, indeed, involves the search after many facts which are not in themselves either medical or psychological.

Obviously the first question is, What are the acknowledged causes of Insanity? and the second, Were these present in full force in the ancient world—as full force as in the modern one?

That the forms of disease to which the human race is liable may vary in character and intensity in different ages and in different nations will not be disputed. I put aside for the present the question of fact—one difficult for obvious reasons to ascertain—whether antiquity presents us with as many marked examples of madness as we witness in our own age, or whether the references made to the disease by ancient physicians, historians, and poets, except when they speak directly of the causes of insanity, indicate a familiarity with its symptoms. I shall only consider the *à priori* question, Whether, having regard to the main and well-known causes of insanity on the one hand, and the conditions of ancient life on the other, there is reason to infer that it was as extensively prevalent in the earlier as in the later ages of the world? It is the question of presumption and probability we have to study. *The historical facts are not now in view.* It is only needful to refer here in the briefest possible manner to the grand and salient causes of insanity, in order that we may have them clearly in mind in studying the manners of the several nations we shall pass in review; for it

would be impossible to enter into the consideration of each of these causes in detail.

Broadly then we may thus enumerate them :—

Intoxication, whatever the poison employed may be. We include the action of alcohol and allied stimulants, not only on the individual taking them to excess, but upon the offspring; the condition of the children, again, causing further degeneracy in the succeeding generation. If, on this cause alone, we can arrive at anything like a decided conclusion, we shall have advanced far towards the solution of the problem before us.

Then we have defective nourishment, leading to exhaustion and mal-nutrition of the nervous centres, to degeneration of the race, idiocy, &c., as witnessed in any miserably under-fed population. The degeneration and insanity attributed to intermarriages open up a question still to a large extent *sub judice*, and it is extremely difficult to trace this cause in reference to its relative influence in ancient and modern nations. The transmission of insanity by hereditary descent is a most important cause, assuming that the disease already exists in a community. In connection with defective nourishment we place bad sanitary arrangements of all kinds—overcrowded and filthy dwellings; the conditions universally acknowledged to cause sooner or later a thorough depravation of the bodily organs, and therefore

of that upon which the integrity of the mental faculties depends.

Next we have various causes, chiefly moral, but partly mixed in character, which excite or depress the emotions profoundly, as a dissolute life or depraved habits, domestic sorrow and misery, commercial speculation and losses, religious excitement, disappointments in love, and the worry of life in general—overwork.

Lastly, intellectual strain, which, if the least potent of causes, when rigidly eliminated from all emotional accompaniments, may by the infraction of the laws of health in other ways—as in causing loss of sleep—prove highly injurious. This distinction explains in part why it does not appear as a prominent factor in the statistics of the ætiology of insanity. It must also be remembered that the published reports of Lunatic Asylums are, as a rule, those which refer to the non-studying class of the population. Often and often the nervous system is grievously injured by the follies and excesses of educational work, involving undue mental tension, and that strain on the memory which is induced by high pressure examinations; but insanity is not the usual form which this injury takes. It is not unfrequently a predisposing, but it is not so often the immediately exciting cause. Hence, when insanity does supervene, the latter, whatever it may be,

gets all the discredit which the former ought to have had, in part at least, and is therefore sometimes overlooked. And above and outside all these exciting causes is that peculiar mental constitution in which there lurks the subtle insane poison or liability to insanity, which renders its possessor prone to become mad when brought into conflict with any one of these causes, and without which they often prove harmless. Whatever conclusion we arrive at as to the extent of the causes of insanity at any period of the world's history, would at the same time affect the question of the prevalence of an insane diathesis. If we have reason to conclude that the former are present in full force, we may be sure that the latent tendency to an outbreak of madness will sooner or later be induced.

The causes of the accumulation of insane persons in a nation, in other words, of existing, as distinguished from occurring insanity, present a highly important, but distinct subject of inquiry.

Here, in the enumeration of the causes of mental disease, the question so often asked, and so often answered differently, arises—Does civilisation favour the increase of insanity? Our answer to the general question—What is the presumption in favour of the prevalence of insanity among the ancients, drawn from the presence of the acknowledged generators of the

disease?—would largely depend upon the reply, if we were agreed upon what civilisation is, and upon whether the ancients or the moderns are the most civilised, as to the signification of the term so decided upon. But we are more likely to avoid reasoning in a circle, and escape the difficulties which surround the subject from the loose and contradictory ideas attached to the term, if we look rather, though not exclusively, at the causes of insanity unquestionably known to us, because present in the midst of the state of society with which we are familiar, and which we call modern civilisation, than at civilisation in the abstract. If we were to speak and argue of a perfect civilisation, it is clear that we should mean a very different thing from that which constitutes the mixed condition of modern society. All our pauperism and drunkenness would be excluded, and the highly-educated, moral, and religious portion of society would remain to represent the idea. But if we were to apply the term to the actual state of so-called civilised Europe, we should have emphatically to include them as striking features of its character, and this, be it observed, not at all as the *remains* of a previous barbarism. Our reply to the question as to the influence of civilisation, will, therefore, to this extent depend upon the sense in which we employ it. If it exclude vice and want, it gets rid of

prolific causes of insanity, and its influence must be highly beneficial, even though there may be some unfavourable causes set in action in the very process itself. If, however, on the other hand, we allow it to include the condition of the whole population of a civilised nation, thus comprising those who may be both poor and vicious, but who are intimately engaged in advancing the progress of the country in its onward march in wealth and in the arts, and whose state is, to a certain extent, conditioned by the advance of modern civilisation, then, indeed, must the reply to the question at issue be largely unfavourable.

To civilise, according to the definitions ordinarily given, is to instruct in the arts of regular life—to reclaim from barbarism—to advance the art of living together in civil society; and if this were all, civilisation might consist, even when its conditions were fulfilled, with intemperance and dissipation, and a large amount of pauperism. It might, in fact, accord with much, or, indeed, all that which forms the actual civilisation of our day. An ideal civilisation, however, would be something much higher than this, and would, in theory at least, be antagonistic to all these evils. It would imply something more than the mere acquisition of knowledge or the refinements of life.

It is necessary, therefore, not to lose sight of these two modes of viewing civilisation—the one

as ideal, the other as actual. In attempting, however, to decide upon the probabilities of the prevalence of insanity in remote periods of the world's history, knowing as we do that there is a frightful mass of mental disease among the European and American populations—at least as much, if not more, than is found in other and less civilised countries—it seems the most practical mode of proceeding to inquire into the social condition of ancient peoples, as compared with our own, satisfied that so far as it is found to have been similar, the former may safely be inferred to have been no strangers to the inroads of mental disease. For ourselves, civilisation, whenever the term is employed, is not used to denote an abstract and theoretical state of society, which implies perfection, but the mixed condition which accompanies and helps to constitute modern society, as presented to us in the civilised nations with which we are all familiar.

Civilisation, that is, European civilisation, is, it must be admitted, a cause of insanity; but when I say this, I do not mean that if we take one man and educate and refine him, and take another man and make him a labourer on a miserable weekly pittance, with a large family to bring up, living in a crowded dwelling, half-fed, yet frequently half-drunk, the former will degenerate into insanity or imbecility more readily than the latter ;

but I say that the labourer of a civilised community is often more exposed to unfavourable psychological influences than the member of a wholly uncivilised tribe; and that even the more favourably placed educated man is in greater danger than the "untutored savage." I am aware that to say that civilisation favours insanity is regarded by many as treason against modern progress, humanity, and Christianity itself. But so far as it arises from an abuse of civilisation, it is only a charge made against such abuse; and so far as it results from mental culture, the circumstance is but parallel to what is observed in regard to vitality itself, in higher, as contrasted with lower forms of organisation. It is simply the penalty which superior organisms have to pay for their greater sensitiveness and susceptibility. Civilisation involves risks because it entails a higher form of mental life, and our highest wisdom consists in thankfully accepting this boon and escaping one of these risks by the prevention of insanity. Although from this point of view we may say that the savage possesses advantages over the civilised man, there is nothing to induce a romantic enthusiasm for savage life. We need not look back with regretful eyes to the period,

"Ere the base laws of servitude began,
When wild in woods the noble savage ran;"

Or for a moment believe that

“ From ignorance our comfort flows,
The only wretched are the wise.”

The more the subject is examined, the greater will be the disappointment felt by any one who forms an abstract idea of what a savage ought to be, free as he is from the real or supposed evils of civilised life. “ Almost you persuade me to go on all fours,” wrote Voltaire sarcastically to Rousseau, when the latter dwelt on the advantages of the primitive state of society enjoyed by savages,—the inhabitants of a desert island enjoying earth’s fruits and flowers without toil or worry.

But philosophers since Rousseau’s day have quietly dropped the savage and desert islander ; and no theory of savage perfection and happiness would in our day find many supporters. Better be civilised, and even liable to insanity, most people will say, than uncivilised and but little liable to it. It has been shown that as regards size, uncivilised races are sometimes inferior to civilised nations ; that in respect to muscles, their strength is not up to the standard of the civilised man ; that the grasp of general facts is deficient in the savage ; that credulity is extreme ; and that while the intellect develops more rapidly it is sooner arrested ; the chief counterbalancing qualifications being the advantage possessed by

the savage in regard to hardihood, the acuteness of his senses,¹ and the comparative immunity from insanity as already intimated. Thus the disease which flourishes in civilised states of society need not have the effect of making us cast a longing, lingering look upon the savage life of our ancestors, but resolutely strive to remove, or at least to lessen the abuses of the glorious gifts which civilised life has created; to moderate luxury and to endeavour to reduce instead of multiplying the artificial wants of society, and by raising the class at the lowest end of the social scale, narrow at the same time the distance between the rich and the poor.

If, then, we say that civilisation is accompanied by an increase of insanity, it is civilisation so understood which we mean. Clearly a theoretically perfect civilisation, even though it should render the organ of the mind more sensitive in some respects to derangement, might by the fulfilment of the laws of mental and bodily health, largely, if not wholly, neutralise the danger.

Having glanced at the most prolific causes of mental disease, and stated my belief that modern civilisation allows of, if it does not in some respects foster the growth of certain recognised factors of insanity, I proceed to consider whether

¹ Spencer's *Principles of Sociology*.

and how far the state of the world in olden time contained the same elements of mental disorder, the same dangers to loss of mental equilibrium.

That these causes were, to a great extent, absent in the early period of the world's history—in prehistoric times—is clear. From *intellectual strain* and its concomitants, the man of the Stone Age was certainly free. Rather from club-blows in battle was his brain likely to suffer!

Intoxication.—It is difficult to form any positive opinion as to what, if any, form of intoxication prevailed in primitive times. We see from Genesis how soon it crept into the old world, and we know that among savages some form of inebriety is common. The Sonthals, one of the aboriginal tribes of India, perform their religious observances in a state of intoxication. But the latter instance, coupled as it is with the rites of religion, is scarcely to the point. Mr. Stanley speaks of African savages who live wholly on a milk diet.

Tylor,¹ in reference to certain mental phenomena produced by drugs in the West India Islands at the time of Columbus, describes the effect of snuffing up the "cohoba" powder through a cane. It produced intoxication; the object in view being to obtain an ecstatic condition, in which oracular utterances would be given. The

¹ *Primitive Culture*, vol. ii. p. 377.

Omagnas were and are in the habit of using narcotic plants, causing intoxication, for twenty-four hours, accompanied by extraordinary visions. To obtain these, the Californian Indians also gave their children narcotics. In North Brazil the same custom prevailed. The seeds of *Datura sanguinia* were used by the Darian Indians to induce prophetic delirium. The Peruvian priests used a narcotic potion, "tonca;" the plant having also the name of "huacacache," *i.e.* fetish herb. Delirium and visions were induced by the Mexican priests with "ololiuhgni." The above writer observes that tobacco was used for the same purposes in both North and South America, the smoke being swallowed by the native races to cause complete intoxication. It was regarded as supernatural ecstasy by the sorcerers of Brazil and by the North American Indians. That these, or similar practices, if known in prehistoric times, would be injurious to mental health, is indeed probable. At the same time they are, in these instances, limited apparently to the priests, and do not imply that these drugs were employed by the mass of the people. The reader will recall the observations of Cook in regard to the natives of Otaheite, where they expressed a liquor from the *avaava* root. Several chewed it till it was soft and pulpy, then spat it out into a platter, watered it according to different tastes, strained it and drank it

immediately. Though intoxicating, Cook saw only one instance in which that effect was produced, as the natives drank it with great moderation. They would also simply chew it. Cook observed that an old native could walk very well in the morning, but required leading home by two people in the evening; hence, he says, he concluded that this root had the same effect upon him that wine has on Europeans. Although, however, it seems that the old people seldom sat down without preparing a bowl of this delicious mixture, there was evidently no general intemperance. Lastly, and much to the purpose, from the fact that savage hunters and fishers are probably fair representatives of the rude primitive races, the hunting Indians of North America and the Australians have no intoxicating liquor.

With regard to drunkenness, then, and, we may add, immorality of a kind conducive to insanity, it is certain that while there *may* have been means employed to induce inebriation, and while the standard of conjugal morality would be wholly different from what obtains amongst a civilised nation, there was not the curse of alcoholism in the form known at a later period of the history of the race; nor were there the multifarious and nefarious vicious indulgences, which in different and what are called more civilised conditions of society sap the mental powers and

are the fruitful source of certain forms of mental disease.

Defective Nourishment, Poverty, &c. — Of poverty—at least, that grinding, reckless, drunken poverty and squalor, with which we are familiar in our large towns and in some of the rural districts, the primitive inhabitants of the world must have known nothing. They might sometimes find it hard work to make the chase yield all they would desire, but prolonged poverty of the kind we have indicated was surely then unknown. The curse of civilised pauperism was yet to be experienced. It is difficult to conceive that the conditions of life under such circumstances would favour attacks of insanity, or the generation of the insane diathesis. And, indeed, the strong presumption that such a race would be little subjected to the main causes of insanity, either predisposing or exciting, is confirmed by what we actually know of savages at the present day; and, granting that such savages may not exactly represent the inhabitants of the Stone Age, there would be an *à fortiori* argument in favour of the comparative immunity from insanity enjoyed by the latter. Although the objection may be, and has been made, that the fact escapes the observation of travellers, yet, with a very large allowance for this source of fallacy, it seems to us impossible to doubt that their testimony suffices to

prove that insanity is rare among uncivilised tribes. The evidence is so uniform, that we cannot but allow it great weight.

Then as to *intermarriage*. In small clans and tribes, marrying in and in may be supposed to have often endangered their vigour, and tended to cause degeneration. If, however, the custom of existing races of savages may be taken in proof, the practice of exogamy, which prevails in many tribes, may have prevailed in early ages. This custom is, in fact, regarded by some as only explicable as a reformatory movement to break up the intermarriage of blood relations (Morgan). The advantage of crossing would, Sir J. Lubbock considers, soon give a marked preponderance to those races by whom exogamy was largely practised. "When this state of things had gone on for some time, usage, as M. Lennan well observes, 'would establish a prejudice among the tribes observing it—a prejudice strong as a principle of religion, as every prejudice relating to marriage is apt to be—against marrying women of their stock.' We should not, perhaps, have *à priori* expected to find among savages any such remarkable restriction, yet it is very widely distributed; and from this point of view we can, I think, clearly see how it arose."¹ It is surprising also to find that in Australia no one may marry a woman whose

¹ *Origin of Civilisation*, p. 69.

family name is the same as his own, although in no way related.¹ Du Chaillu asserts that it is "an abomination" in Western Equatorial Africa for the members of the same clan to intermarry. If, then, endogamy was really rarer than exogamy, the tendency to mental degeneration in prehistoric times may have been confined within narrow limits. As we write, Mr. Stanley's narrative in the *Telegraph* records the endogamic practice of an African tribe. "They are," he writes, "extremely clannish, and allow none of their tribe to intermarry with strangers." It must be stated that Mr. Huth, in an able work, says that the only instances on record he has met with in savage nations of any evil effects being attributed to consanguineous marriages are those of the Kenai, the East Indians, and the Hawaiians, and he dismisses them as inconclusive. He tries to show that the reason many nations have prohibited such marriages is not from having observed any evil result; that many communities have lived without crosses, and without any excess of disease; that the statistics on the subject are worse than useless; and that as far as experiments on animals go, they show the harmlessness of these marriages; and that deterioration through the chance accumulation of an idiosyncrasy, though more likely to occur in families

¹ Cf. Mr. Lang's *Aborigines of Australia*.

where the marriages of blood relations are habitual, practically does not occur oftener than in other marriages, or it would be more easily demonstrated.¹ The influence of consanguineous marriages upon the production of insanity and idiocy is at any rate not so certain as is usually supposed; and therefore if in pre-historic times, as among some savages, kinship was disregarded, it would not be safe to assert, in the present undetermined state of the question, that there was more liability to mental disease under such circumstances than in modern civilised society.

Causes Chiefly Moral.—To religious perplexities, commercial speculation, and to political excitement, the man of the Drift Period was certainly a stranger. He might, indeed, suffer terror from his belief in evil spirits, but probably this would be generally removed by the simple belief in charms to counteract their malign influence. Peril to mental health from theological doubts and perplexities, would, at any rate, be unknown. Mr. Tylor, in a letter to the writer, says that he does not think there is any likelihood that the fears of misery of the soul after death, which act so strongly in the civilised world, had any appreciable effect in upsetting the savage mind; and that though the notion of a future life of the

¹ *The Marriage of Near Kin*, by Alfred Henry Huth, 1875, pp. 8 and 358.

ghost is strong (connected with the appearance of the dead in dreams) among the savage tribes which are best known, anything like a moral judgment after death seems faint or absent, and so it may have been among the Drift people; but that still, if the theology of modern savages is any type of that of those early people, madness would already have a theological aspect, and might be influenced by religious ideas. With epilepsy, convulsions, &c., mania would be regarded as demoniacal possession, and the utterances of the patient as due to a demon. We must not, then, ignore entirely the effects of a belief in ghosts and demons. Mr. Tylor inclines to think that savages really do fear horribly these phantoms which pervade their world and are especially numerous and active in the dark. Still, he would not go so far as to say that dwelling on these bogies often or ever drives savages mad, though an aggravating influence on morbid states of mind. While he believes that the sensual excesses of savages may be counted as causes of insanity, he thinks decidedly not to the extent obtaining in civilised or luxurious nations; the set-offs being such as belong to a state of physical health (the weaker being killed), rough food, active athletic life, and the absence of stimulants. Active athletic life is assuredly one of the most important features of the prehistoric period,

which present themselves as antagonistic to the prevalence of mental disease.

To disappointments in love they would be almost or entirely strangers. The affections of savages are so little developed and cultivated in this direction, that they would escape the dangerous shocks and blights to which they are exposed in civilised nations. They would probably have no institution of marriage. "True love," observes Sir John Lubbock, "is almost unknown amongst the lowest races ;¹ and marriage in its lowest phases is by no means a matter of affection and companionship. Among the Koussa Kaffirs, Lichtenstein asserts that there is no feeling of love in marriage." He cites a French writer to show that the Samoyedes of Siberia show little affection for their wives and "*daignent à peine leur dire une parole de douceur.*" Many other instances might be adduced to illustrate this characteristic, but these are sufficient to show that in one very important circumstance, the early races would not be so open to the action of the causes of insanity as civilised nations are.

¹ I am informed, however, by Mr. Tylor, that he has met with several mentions of suicide from love among the North American Indians—an evidence that the passion exists with them.

CHAPTER II.

AMONG THE JEWS AND EGYPTIANS.

PASSING from wholly uncivilised men to a higher grade, we may apply the same tests to the state of society depicted in the early and some of the later books of the Old Testament, and then to Egyptian, Greek, and Roman society, the problem for solution being whether the character and extent of their social condition were such as to render it highly probable that they were subjected to the same causes of insanity as ourselves, or causes equally potent.

Intoxication.—Noah planted a vineyard, and what followed is of especial importance to us, because in it we are obliged to recognise one of the frequent causes of insanity. In the Jewish *Mashal*, it is related how that when Noah came to plant his vineyard, Satan joined him and asked, “What are you planting?” He replied, “A vineyard.” “For what purpose,” rejoined Satan? “Its fruits,” answered the Patriarch, “are sweet whether used fresh or dry, and wine is made from them which rejoices the heart.”

"Then shall we two work at it together," observed the Enemy. Whether Noah was often drunk we do not know, but it may safely be inferred that it was no unusual thing for his immediate, as well as his subsequent, descendants to be intoxicated.¹

In Deuteronomy, the parents of a rebellious son are commanded to bring him to the elders of the city and say, "This our son is a glutton and a drunkard," in order that he should be stoned. The fact that Eli thought Hannah drunk when she came into the temple, the simile of David, "stagger like a drunken man," and of Isaiah "as a drunken man staggereth in his vomit," and his complaint that he was the song of the drunkards, and the remonstrance of Joel, "Awake, ye drunkards, weep and howl"—these facts show how well-known was the sin of drunkenness.

From all this we see clearly that intemperance was quite sufficiently prevalent among the Hebrews to cause a certain amount of mental disease; at the same time there is ample proof of its not having been the scourge of society which it is among some nations of the West. The Jew bears the character of being sober at the present day. Mr. Stallard, in his valuable work on *London Pauperism amongst Jews and*

¹ Later on, vineyards are constantly mentioned. Horne observes that the wines of Canaan, being heady, were commonly mixed with water. The luxurious prepared them with spices (Edersheim).

Christians, says that drunkenness is rarely the cause of distress among the former, and that a Jew's sobriety gives him a marked advantage in all branches of common labour. "The visitor of the Jewish district is forcibly struck with the consequences of this sobriety. The houses of the poor are, on the whole, cleaner, more tidy, and more comfortable, than amongst the poorest English. The children are always better clothed and more cleanly, their round and ruddy faces presenting a strong contrast to the pale and scrofulous countenances of English children living in the same overcrowded courts. . . . Everywhere in the Jewish houses there is less of that squalid destitution which is the result of intemperance. Nowhere is it possible to find Jewish men and women with bloated and waxy faces, standing at the doors of public-houses, as do the sots whom no charity can help, no philanthropy reclaim. Home is the centre of their happiness, and the love of the family is worthy of all praise. Desertion is comparatively rare, and brutal violence to the women and children utterly unknown amongst them" (*op. cit.* p. 11). Edersheim says the Jews were always very moderate in their potations, except on festive occasions, and maintains that drunkenness was never one of their national sins.

Defective Nourishment, Poverty, &c., as shown in the Mode of Life.—The lives of the patriarchs

unquestionably indicate a condition of life which, compared with our own, was exceedingly simple, although by no means savage—one much more in accordance with nature, far less moulded by artificial wants. It is true that Abraham was “very rich in cattle, in silver, and in gold,” and also in menservants and maidservants, yet he runs to the field, on a well-known occasion, and fetches a calf for his guests, and it would seem even dresses it himself. As the custom was, he stood, and they took their meal under the tree, as is done to this day in the East. Rebekah comes forth with her pitcher on her shoulder at the well to meet Eleazer. There is, indeed, a remarkable mixture of the primitive simplicity of pastoral life with certain luxuries, or at least elegancies, for even then Abraham’s servant presents her with earrings and with bracelets. These, however, may have been nothing more than the ornaments worn by savages at the present day. Rachel tended the sheep; and Jethro’s daughter had the charge of his flocks, although he was a prince. They were dwellers in tents, like the modern Arabs, and occasionally in caves, like Lot and his daughters, and in houses of stone, or mud, or wood. We read, indeed, as we extend our survey to a later period of Hebrew history, of ivory palaces in the Psalms, and of the ivory house of Ahab, probably houses only ornamented with

ivory, but any way indicating some artistic development. Then as to dress, we find garments manufactured from wool and flax mentioned in Leviticus and Proverbs, while the wealthy indulged in fine linen and purple or scarlet silk. Rings and seals were frequently worn even in early times, and we read of chains on the neck, and tinkling ornaments on the feet. Rebekah's bracelets we have already mentioned. Men also wore them—as Judah and Saul. Jezebel painted her face or darkened her eyes with the powder of lead ore. Looking-glasses of polished brass were in use.

Then, as to the occupations of the ancients of the Bible, they were, we well know, mainly pastoral and agricultural—in the early times, almost exclusively so. The people were shepherds and husbandmen.

Moses was a shepherd. A judge in Israel—Shamgar—was taken from tending the herd, and Jephthah from the sheep. Gideon left his threshing floor. Even when Saul was king, we find him coming out of the field after the herd, at the time he was informed of the danger which a certain city was in. David was brought from feeding the ewes. One king—Uzziah—is stated to have been a lover of husbandry. Elisha was called from the plough. Amos was a herdsman. Women of quality, so to speak, also, as we have

seen, tended sheep. There were in early days artificers in iron and brass, in instruments of music also, and afterwards there are occasional indications of art. The golden calf shows some artistic power. In Chronicles we read, after Joshua's death, of the valley of Charashim, where the craftsmen dwelt. Chariots were built, images sculptured. Smiths are mentioned in the days of Saul as being seized by the Philistines, and they and craftsmen (in addition to barbers, bakers, potters, and fullers) were carried away into captivity by Nebuchadnezzar. Horne says that among the Hebrews, artificers were not, as among the Greeks and Romans, slaves, but men of rank and wealth. He points out that although before the Israelites entered Canaan, Bezaleel and Aholiab excelled in their workmanship of the tabernacle, they seem to have been without successors, for in Solomon's time, although at leisure for art, they had no professed artists able to undertake the work of the temple, and had, therefore, to send to Hiram, King of Tyre, for a skilful artist. In science, their knowledge was probably less than that possessed by many nations, but Job and Solomon must have had considerable acquaintance with natural history. However deficient in art and science without foreign help, their civilisation was shown in their literary compositions, and especially their poetry. We have

only to recall the Song of Moses, that of Deborah, Barak, and Hannah, the lamentation of David over Saul and Jonathan, to say nothing of the Psalms, Proverbs, Canticles, &c. In those schools of which we read first in the book of Samuel, the law must have been carefully taught, and instruction must have been given in music. By the time of David, and yet more of Solomon, very considerable advance must have been made in knowledge and civilisation.

We also witness the development of luxury and of the vices incidental to such a state of society as must have existed under Solomon. Those referred to in the book of Proverbs must have had a certain influence in producing mental disorders. We can speak no longer of primitive simplicity, although we might still contrast the society of Jerusalem at this period with that of our modern capitals.

As to poverty, it was said indeed that the poor should never cease out of the land, and the poor are very frequently mentioned in the Jewish writings. Some, at least in the days of Solomon, were observed to become poor through drink. "The drunkard shall come to poverty." It is not, however, to be supposed that the depths of poverty and misery familiar to ourselves were reached by large masses of the people. Beggars, properly speaking, except those afflicted with

disease, were unknown in Palestine, and to a great extent are so still among Jews.

Causes Chiefly Moral.—As regards profligate immorality, the references to it are numerous enough, but, as a whole, the Jewish nation cannot be regarded as having stood low in this respect. As to other emotional excitors and depressants, they no doubt exercised a certain influence in the direction of insanity, but still a limited one compared with that of modern society. The same remark applies to intellectual strain.

Take next Egyptian civilisation. Nothing can be more wonderful; and the more we know of it, the more wonderful does it appear. The earliest writings of Egypt (some of them the earliest writings in the world) reveal a social condition and a state of morals which leave no room for doubt as to the remarkable advance made in civilised life centuries before Abraham visited Egypt. The question is, was it ever comparable to our own in its character and extent? Were the great causes of madness, present in our age, in powerful action among the Egyptians? To glance rapidly at the first question, look at their proficiency in some of the arts. The Egyptians, although principally an agricultural people, were remarkable for their inventions, and as manufacturers were celebrated for their fine linen, cotton

and woollen stuffs, and their taste in porcelain and gold and silver articles, while the cabinet-makers turned out excellent work.¹ Pharaoh arrayed Joseph not only in fine linen, but put a gold chain about his neck and a ring upon his hand. Many of the bracelets, rings, and earrings discovered in Egypt, which are at least four thousand years old, show the advance made in goldsmith's work. In the Leyden papyrus the following curious satire on the luxury of the day occurs; at least it seems reasonable to regard it in this light, "All manner of jewels are found on the necks of slave women; honourable women and mistresses of houses are saying 'Would that we had enough to eat!'" The hieroglyphics on obelisks, &c., were sculptured in a way which surprises the workman of the present day with his tools of exquisitely tempered steel, as I have been assured by the proprietor of well known granite works in England. Their rich sculpture and the beautifully clear execution of their drawings were combined with a knowledge of the harmony of colours. Geometry would seem to have originated with the Egyptians. Mathematics are said to have made almost as much progress at the time of the earliest extant monuments as at a much later period. Then the ancient Egyptians are generally believed to have invented the art of

¹ Wilkinson's *Ancient Egypt*, vol. ii. pp. 109, 247.

writing. Through their power of committing their thoughts to paper, we know (from the *Book of the Dead*) what their sentiments were in regard to the future, and that they believed in the immortality of the soul. They cultivated the study of Medicine and Surgery, and their second King (Athothes) wrote upon Anatomy, while another Egyptian composed six books on Medicine. Each doctor practised his particular branch ; some were oculists, some dentists, some treated internal maladies. The mummies show that the art of stopping teeth with gold was known to the Egyptian dentists. If of Medicine they had a remarkable knowledge, and if in Divinity—notwithstanding their degraded notions in regard to the worship of animals—they had certain conceptions of a lofty and spiritual nature, so also the high character of their legislation has always been admired. The condition of the women in any country is regarded with justice as some test of the degree of its refinement. They are represented in the Egyptian Sculptures as engaged in weaving and using the spindle, but they were no mere drudges. They were not obliged to remain in seclusion, or if they left the house to wear a veil, as in the East ; nay, it would seem, according to Diodorus, that so great was their influence and position that it was actually agreed in the marriage covenant, among other things, that the wife should

have control over her husband, and that no objections should be made to her *commands*, whatever they might be¹—a fine precedent for the advocates of women's rights in our own day !

The Egyptian women were, as Mahaffy shows, good musicians, and versed in some of the other arts and sciences. But if they spun and sewed, they sported at ball and danced ; and this writer thinks that their education cannot have been very great, because they have left no literary compositions behind them. He also points out that their best-known characters, whether they appear in history or are depicted in romance, are by no means good, and contrast unfavourably with the women of the Bible.

Recalling now the main causes of madness mentioned on a previous page, were they, let us inquire, largely present among the ancient Egyptians ?

Intoxication.—In a very old papyrus in the British Museum occurs unmistakable proof that the ancient Egyptians were no strangers to drunkenness. Here is a most interesting passage from a letter written to a teetotaller of that day, who had evidently not kept his pledge :—

“Whereas it has been told me that thou hast forsaken books, and devoted thyself to pleasure ; that thou goest from

¹ Wilkinson. *op. cit.* vol. ii. p. 223.

tavern to tavern, smelling of beer, at the time of evening : if beer gets into a man, it overcomes his mind. Thou art like an oar started from its place, which is unmanageable every way ; thou art like a shrine without its god, like a house without provisions, whose walls are found shaky. Thou knowest that wine is an abomination, that thou hast taken an oath that thou wouldst not put liquor into thee. Hast thou forgotten thy resolution ? ” ¹

The custom which prevailed at their feasts of handing round a small wooden image with the words “ Behold this, eat, drink, and make merry ; when thou art dead, such shalt thou be ” (a commentary, by the way, on “ If in this life only we have hope, let us eat and drink, for to-morrow we die ”), illustrates the drinking customs of the Egyptians on public occasions. It is stated that at the Egyptian banquets, even the ladies were carried home by their attendants drunk.²

Wilkinson regards it as highly improbable that the Egyptians were in early times immoderately fond of delicate living, or at any period committed the excesses common among the Romans. The example of the priests favoured moderation. Still, before 1600 B.C. the indulgence of the higher classes had almost reached the pitch attained by the later Pharaohs. Diodorus and Plutarch assert that their primitive simplicity

¹ Eleventh Letter of the Papyrus Sallier I., British Museum ; translated by Mr. Goodwin (*Prolegomena to Ancient History*, by Mahaffy, p. 293).

² Wilkinson's *Ancient Egypt*, vol. ii.

succumbed to luxury as early as King Menes the First. They were guilty of excesses, "especially," this Egyptologist asserts, "in the use of wine, both on private and public occasions, which is not concealed in the sculptures of Thebes; and in later times, after the conquest of Egypt by the Persians, and the accession of the Ptolemies, habits of intemperance increased to such an extent, and luxury became so general among all ranks of society, that writers who mention the Egyptians at that period, describe them as a profligate and luxurious people, given to an immoderate love of the table, and addicted to every excess in drinking. They even used excitants for this purpose, and *hors d'œuvres* were provided to stimulate the appetite; crude cabbage provoking the desire for wine and promoting the continuation of excess" (*op. cit.*, vol. ii., p. 381; and Athenæus, vol. i., p. 56).

In consequence of the quantity used being so much greater than what was made in Egypt, a large importation from Phœnicia and Greece was, according to Herodotus, required in his day. It appears that among the rich not only was wine the favourite drink, but a beer called *zythus*, made from barley, and flavoured with lupin, &c., was in great repute. Athenæus, himself an Egyptian (flourishing in the third century after Christ), says of this beer, that those who drank it were so

pleased with it, that they sang and danced and did everything like men drunk with wine.¹ For our present purpose, it is particularly interesting to know that the mass of the people drank it—apparently so, for Athenæus says the poor took it because they could not afford wine. Wilkinson thinks that the peasants in all parts of Egypt partook of it, though in a less degree in the abundant vine districts. Herodotus maintains that it was only used in lieu of wine in the lowlands, where corn was mainly cultivated. It was evidently, however, a popular beverage.

Herodotus records that “Mycerinus, the Egyptian, having been told by the soothsayers that he was fated to live but a short time, used to light a great number of lamps when night arrived, and spend all his time in drinking and luxury, relaxing neither by day nor by night; and when he withdrew into the marshes and into the groves or wherever he heard that there were meetings of young people to amuse themselves, he always got drunk. Amasis, also, another of the Egyptian kings, was a very hard drinker indeed.”²

From the foregoing it is but too clear that there was quite sufficient drunkenness to cause a considerable amount of madness; at any rate, in the more luxurious age of Egyptian history, for the

¹ *The Deipnosophists*, vol. i. p. 56 (Bohn's ed.).

² Herod. book. ii. Athenæus, vol. ii. p. 692.

distinction must always be borne in mind, in this inquiry, between the early and the more civilised periods of a nation's history. To confound under the term "Egyptians" the people of a less and more advanced civilisation would be misleading, although as to large periods of time, the embracing of populations separated by thousands of years would be of less consequence in Egypt than in any other country, except perhaps China. Granting, however, the fact of drunkenness among the Egyptians, some in the early and more than a little in the later periods of their history, I cannot find evidence to prove that the labourers, native or foreign, were maddened by bad beer—certainly not by worse gin—into frenzy, or into the committal of crimes such as figure every day in our police courts. Are not these luxuries more especially reserved for the British labourer? His Egyptian prototype did not enjoy, we may safely assert, the grand privilege of being frequently off "on spree" when he might be at work; nor did he, we may confidently aver, revel in the enjoyment of that liberty so dear to Britons, so gladly accorded to them, and so scrupulously protected and defended by certain members of Parliament, of being so muddled by Saturday night's and Sunday's drink as to be unable to go to work on Monday morning.

Defective Nourishment, Poverty, &c.—In regard

to the extent of poverty among the lower classes in Egypt, probably their toil was sufficiently paid for in food to prevent actual starvation, and yet they appear to have been "miserable in the extreme" according to Mahaffy, who suspects that this may have been an important cause of the gradual decay of Egyptian and other early civilisations.

"The Fellaheen," writes a friend of mine now travelling in Egypt, "are miserably poor, being ground down with taxation, a large part of the produce of which must be spent by the Khedive upon the innumerable palaces for himself or his sons. I have little doubt that all that is wanted to make the people prosperous is a reduction of taxation and the gradual inroad of education, for they are a very fine race. Possibly the little which is required to make life tolerable in such a climate as this, might be a hindrance to advancement. They eat three quickly consumed meals of dry brown bread, and a mash of peas, and this seems enough to develop very fine muscular frames. One cannot help wishing that something could be done toward the better government of these poor people, who have been under the bonds of a perpetual succession of oppressors from the earliest ages. I believe that in old Egypt the mass of the population were in much the same state that the Fellaheen are in now. The repre-

sentations of life on the walls of the Temples depict what we see every day in the fields and on the river banks."

We must remember that "the miseries of the old Egyptian poor are only transmitted to us by the boasts of reckless kings who so loved their own glory, and to magnify their deeds, that they confessed the reckless waste of human life with which they completed their eternal monuments, and that there were great social sores, great sorrows of humanity, covered with a surface of unjust and heartless splendour."¹ The suffering of those engaged in mines was no doubt horrible, if the account given by Diodorus may be trusted. They were prisoners of war, and notorious criminals, not the ordinary slave, to whom they are said to have been kind; and the murder of a slave was punished with death. These miners were bound in fetters, compelled to work day and night; and overseered by soldiers. No attention was paid to their persons; they were naked; and "so wretched," says Diodorus, "is their condition, that every one who witnesses it deplores the excessive misery they endure. No rest, no intermission from toil, are given either to the sick or maimed; neither the weakness of age nor women's infirmities are regarded; all are driven to their work with the lash, until at last,

¹ *Social Life in Greece*, by Mahaffy, p. 75.

overcome with the intolerable weight of their afflictions, they die in the midst of their toil. Such," adds this graphic writer, "is the method of extracting the gold on the confines of Egypt, the result of so many and such great toils. Nature, indeed I think, teaches that as gold is obtained with immense labour, so it is kept with difficulty, creating great anxiety, and attended in its use with grief as well as pleasure." But whatever their poverty and poor food, their sufferings—and these evidently ended in death rather than madness—were not of that particular kind which affect so large a number of our own labourers, both agricultural and manufacturing; those bound up with England's accursed pauper drunkenness being, I had almost said, worse than all the plagues of Egypt put together.

Causes Chiefly Moral.—In regard to emotional excitement—there is no reason to suppose there was, even among the classes above the labourers, that hot and breathless struggle for a livelihood—that speculation and gambling in various forms which mark our business life. Contrast the constant tendency to change which characterises English society with that which existed in Egypt. It was fixed, stereotyped. The strange thing about Egyptian civilisation is, that there was no gradual advance to higher and higher states, but that for thousands of years the people continued

in essentially the same condition, civilised it is true, but never making vigorous strides beyond. The range of knowledge traversed by the student in Egypt, however remarkable, will bear no comparison with that required in our own day. What we call learning must have been very much restricted to the priests. It was their interest to confine it to themselves, in order to maintain their superiority over the masses of the people, and make a good living out of their wisdom. Zincke observes, that the Egyptians eliminated the elements of political and social change, by arranging society in the iron frame of caste, and by petrifying all knowledge in the form of immutable doctrine.¹ The ruling power decided what every man was to be, and what every man was to do. The system was both a cause and effect of the condition of their society. One-third of the land belonged to the monarch, one-third belonged to the priestly caste, and one-third to the military. A profession or business usually descended from generation to generation. The office of embalmer, for instance, might be hereditary for some hundreds of years. From another point of view, that of slavery, we might with the above writer say that this system divided the society of Egypt into two great castes, assigning to one, leisure, culture, the use of arms, government; to the

¹ *Egypt and the Khedive*, p. 275.

other, denying them all participation in these advantages and employments, it assigned absolute subjection, labour, and just sufficient food. Hence uniform social order, and little sensational excitement. Political heat, commercial panics, religious perplexity, where were they in the good old days of the Pharaohs? There was in all probability comparatively little morbid sensitiveness, little sentimentality, self-consciousness, or the imaginary, but no less real, anxieties and cares of an over-strung mind. As regards the morality of the Egyptians, we are not in possession of much definite information, but are not aware that they were in any way remarkable for profligacy. The union of brother and sister was permitted. Polygamy was allowed. There was no restriction, says Diodorus, except for the priests. Yet the privilege does not appear to have been frequently taken advantage of. Herodotus found in his day, that most of the Egyptians had only one wife.

Intellectual Strain.—The remarkable advance of the Egyptians in knowledge of various kinds could not have been attained without considerable study. What amount of toil and moil this study involved, it is impossible to say; but we can have no doubt that it was small compared with that of the present day. As a cause of insanity we may safely place it low. Sleepless nights from

over-worked brains were, we may well suppose, infrequent.

It is obvious, then, on a general review of the state of Ancient Egypt, that the people attained to a high rank of civilisation, and that there certainly were not wanting some of the recognised causes of insanity to which we have referred—especially drunkenness. Still I think the conclusion is fair that while it resembled the civilisation of England and some modern countries in important respects—those, indeed, having a special bearing on the question before us—it did differ in degree sufficiently to affect results. Whatever the vices of the Egyptians were, they were no doubt intensified in their later history.

I infer that then, as now, these and other causes induced a very considerable amount of insanity. Lastly, the grinding labour exacted from the poor was certainly sufficient to weigh down many a heart to the depths of insane despair. Doubtless, however, death came frequently to the rescue, and anticipated actual madness. An accumulation of insane was at any rate prevented.

CHAPTER III.

AMONG THE GREEKS.

PASSING from the Egyptians to the Greeks, we proceed to pursue the same line of inquiry. Were their habits, their social life, the character of their civilisation, such as to lead us to expect that there must have existed among them, in any well-marked degree, the clearly recognised causes of insanity? In this investigation we must carefully distinguish between their early and heroic age and the period of their highest culture and refinement, otherwise we shall fall into the error of comprising under the same term widely different conditions of society, and in the endeavour to compare them with our own—that is to say, modern civilised life—shall draw a totally false inference. The seeds of insanity may have been widely sown among the people of one age, and but sparsely among those of another.

We have, in the verse of Homer, abundant evidence of the general character of the civilisation of the Greeks at the period to which he refers

—the legendary and heroic age of Greece; not a state of barbarism, assuredly, but one which we feel differs widely from our own. They were far removed, doubtless, from the savage condition of certain early Greeks, described by Thucydides, marked, as he represents it to have been, by piracy—men falling upon towns which were unfortified and like straggling villages, and rifling them without disgrace, but rather with glory. He adds that in many other respects it might be shown that the Greeks, at the period of which he is speaking, lived in a manner similar to “the barbarians of the present age,” implying by this that their food consisted of milk and what the chase afforded, uncooked, and that they were clothed in undressed hides. To the people who were in this rude condition the remarks we have already made on barbarous tribes would apply; and we can have no doubt that the causes of insanity were then prevalent in only a limited degree.

Although, however, the Greeks of Homer were by no means savages, a robust simplicity marked their mode of life. They had no knowledge of coined money. There is no conclusive evidence that they were familiar with the art of writing, or that they had advanced in the arts of painting and sculpture. “All the varieties of Grecian music, poetry, and dancing, arose later than

the first Olympiad"—B.C. 776 (Grote). It must be admitted that, although we have spoken of simple manners, there were not wanting indications of wealth. "The halls of Alcinoüs and Menelaüs glittered with gold. Copper and iron were stored up in the treasure-chamber of Odysseus and other chiefs" (*op. cit.*). In illustration of the condition of Homeric society, it may be remembered that in the *Iliad* Paris constructs his own house. He brought together some skilful designers, or architects, but he "himself the mansion raised." If it be objected that this only implies that he built himself a house in the general sense in which we ourselves speak at the present day, we may refer to the account of Ulysses, which is still more definite. He cements the stones, he roofs his dwelling, he hangs on the doors. Royalty in that age did not disdain, but gloried in manual occupations, while nowadays an ex-Premier is thought to act rather strangely, and cannot escape a sly hit from the comic papers, because he delights to take the axe into his own hands and fell his trees.

Ulysses boasts of his skilful mowing and ploughing, and cares not for the toilsome length of the day. He protests to Eurymachus that he would prove a match for him with his well-bent sickle in his hand, or with the ploughshare, making a straight furrow through the glebe.

Women, even of noble family, concerned them-

selves in what would now be regarded as unbecomingly menial occupations. Irrespective of rank or freedom, they were constantly engaged in spinning and weaving. The dress of both men and women was homespun. In this occupation "Helen as well as Penelope is expert and assiduous. The daughters of Keloës at Eleusis go to the well with basins for water, and Nausicaä, daughter of Alcinoüs, joins her female slaves in the business of washing her garments in the river" (Grote). But we must not extend these references, our object being merely to show that when regarded as a psychological study, the general state of Greek society at this period must be clearly recognised. When, with the same object in view, we pass from the more or less legendary to the truly historical period of Greek history, and see the gradual advance made in the arts and in the mode of life, we are conscious that there are springing up fresh elements of psychological importance, or at least a development of some already in existence, but comparatively powerless. But it is when we come to that period of Greek cultivation and refinement which culminated in the era of Pericles, that we recognise a degree of civilisation which resembles in many respects that of the Europe of to-day, and which without a doubt must have involved mental loss as well as mental gain, and must have threatened

mental health with no inconsiderable peril, both on the side of luxury, and on the opposite but ever accompanying side of pinching poverty. In this connection, one aspect of Greek life, before effeminate habits marked the decline of the nation, is important, namely, a brave and hardy national spirit. It is not necessary to show that a condition of society in which hardihood and active habits are enjoined and practised is more favourable to psychical health than one of great wealth and luxury. Hence Greek politicians encouraged a willingness "to brave at all times personal hardship and discomfort; so that increase of wealth, on account of the habits of self-indulgence which it commonly introduces, was regarded by them with more or less of disfavour" (Grote).

Intemperance.—To the question, Was intemperance prevalent among the Greeks? the general reply must certainly be that they were by no means strangers to the vice, but that they were, as a race, much more temperate than the nations of Northern Europe.

Women and children drink wine in the *Iliad*, but not to excess. Achilles is described as "spitting out the wine in froward infancy" (*Il.* ix. 487). Nausicaä and her companions take it (*Od.* vi.). Athenæus says the Greek women were ill thought of, on account of the liberty allowed

them in this respect, compared with other nations. Homer dilates on the good qualities of the earliest known wine—the Maronean—so strong that it required dilution with twenty measures of water. But Agamemnon does not appear to have favoured such aqueous dilutions, for he says to Idomeneus, “ Though other long-haired Achæans drink by measure, thy cup stands always full, like my own, to drink when the desire prompts thee ” (*Il.* iv. 263).

Lycurgus only allowed wine for the purpose of satisfying thirst, and ordered that those who were returning home from a feast should find their way without a light. The Lacedemonians recognized the custom of drinking healths as a frequent cause of drunkenness. Solon’s laws made drunkenness in an archon a capital crime, and he found it necessary to revive a former rule that wine drunk at feasts should be mixed with water. The Senate of Areopagus punished those who were given to drink and convivial company.

Again, Dionysius the Sicilian offered at a feast a golden crown to him who should first drink a cup containing a pint, and Xenocrates was the successful winner of the prize. Aristotle says that Dionysius was sometimes drunk for three months together. His sons were drunkards. Plato, in the *Laws*, says, “ Shall we not lay down a law that boys shall not taste wine at all,

until they are eighteen years old? . . . thus exercising a caution about the mad-like habits of young persons ; but afterwards to taste, indeed, wine in moderation until they are thirty years old ; but that a young man is to keep himself by all means from intoxication and much wine ; but on reaching forty years to indulge freely in convivial meetings, and to call upon the other gods, and especially to invite Dionysus to the mystic rites and sports of old men, in which he kindly bestowed wine upon man as a remedy against the austerity of old age, so that through this we might grow young again, and that by a forgetfulness of heart-sinking, the habit of the soul might become from a harder state more soft," &c. (Bk. ii., c. 9.) All which is very clear proof that the Greeks in Plato's day were so well aware of the evils resulting from intoxication that restrictive legislation seemed desirable in a model state.

In Mitylene, where wine was very abundant, Pittacus, the lawgiver, instead of allowing drunkenness to be an excuse for a crime, directed that it should entail a double punishment.

There is an anonymous address to Simonides,¹ which is of much interest in this inquiry. "To him who will drink let them pour out without

¹ The praise of wine by the contemporary of Simonides, Anacreon, is too well known to require proof. He was at once a sign and a cause of the free use of the bottle, though he himself was reputed temperate.

stint—it is not every night that we enjoy such luxury. But I—for I am moderate in honey-sweet wine—will court soothing sleep when I have gone home, and will show you how wine is most pleasant for man to drink. For neither am I too sober a man, nor am I very intemperate. But whosoever exceeds a measure in drinking is no longer master of his tongue or his mind, and talks recklessly of things disgraceful to the sober, and is ashamed of nothing, though modest when he is sober. Now you, perceiving this, drink not to excess, but either retire before you are drunk . . . or else stay and do not drink. But you are ever babbling that silly word, “Fill your glass,” and so you get drunk. For first comes the health of the guests, and then a second cup is left ready before you, and a third is for a libation to the gods, and so you know not how to refuse.” He ends with recommending good conversation around the bowl, and “so our feast will not want in refinement.”

There is a great deal said in Greek writings about copious potations of wine, but it must be borne in mind that this was often diluted with water—probably three parts of water to two of wine. Equal parts made people “mad,” says a comic writer. Some writers are at a loss to decide whether Greek wines were stronger or Greek heads were weaker than ours; but, which-

ever it may have been, it is quite clear that the wine drunk was capable of producing the evils which arise from its abuse. Evenus says "that wine taken out of measure is the cause of grief or weakness;" adding, "in company with three (water) nymphs he is most suitable" (quoted by Mahaffy). When the Greeks drank wine without water, they were said to act like Scythians.

Diotimus the Athenian was nicknamed "the Funnel," because, putting a funnel into his mouth, he would allow any amount of wine to be poured into it. Xenarchus, an excessive drinker, was called "the nine-gallon cask." One of the Deipnosophists says that wine being the cause of madness, and all sorts of debauchery, might be called the "metropolis" of these evils. A quotation made by Athenæus from Alexis clearly shows that the extent of intoxication, if comparatively limited, was quite sufficient to cause much misery, and some madness. "Is not, then, drunkenness," he asks, "the greatest evil, and most injurious to the human race?" It has been given as a proof that the Greeks were at one period, at least, addicted to drinking, that whenever any one drank without taking his breath, the company applauded, saying *long may you live*, and that those who refused to drink at entertainments were, in most places, obliged to leave the room, by that celebrated law of good fellowship, *Drink or*

begone! ("Η πιθί, ἦ ἀπιθί). In fact, many examples of intemperance among the Greeks are given by Athenæus, in whose *Deipnosophists* is an epitaph on Arcadion, written by his sons, which leaves no room for doubt as to the dipsomaniac habits of their father :—

“ This is the monument of that great drinker
Arcadion——
And know, traveller, the man did die
From drinking strong wine in too large a cup.”

Eubulus introduces Bacchus as saying that the eighth cup of wine brings the constable, and the ninth black gall and hatred, while the tenth brings “madness.”

Greek women have been frequently charged with drunkenness, but we are satisfied that although not by any means teetotallers, they did not imbibe strong wine to the same extent as the women of England. Indeed, the Milesian ladies are said to have only drunk water. The number of wine-flasks left daily in the waiting rooms of English Railway Stations by the ladies who frequent them is something extraordinary, and forms one among other proofs of an amount of imbibition which would have shocked respectable women in Greece at any period.

A story of psychological interest, much to our purpose, is told by Timæus of some young men who got drunk at Agrigentum, and were so mad

that they thought they were sailing in a trireme, and were being tossed about in a storm, and so threw all the furniture out of the windows, fancying the captain had ordered them to lighten the ship. The prætors next day found the young men lying "sea-sick," as they said, and they replied to questions put to them that they had been in danger from a storm, and been compelled to throw the cargo into the sea. The prætors were evidently bewildered with the mental condition of the men—one of whom said, "I, O Tritons, was so frightened that I threw myself down under the benches and lay down as much out of sight as I could"—and dismissed them with a reproof, and a warning not to indulge in future in too much wine. True to their delusion, the young men replied that whenever they arrived in port they would erect statues to them as their deliverers!

The facts we have now given convey the impression of an essential sameness between the drinking customs of all but the early Greeks and our own; and we are forced to conclude that with them as with us, insanity must have been not very unfrequently induced by too copious potations of alcohol. There is, however, no evidence that even in the most corrupt period of Grecian history there was the widespread tippling which disgraces England; and we know that the masses did not suffer like ours from the demoralization of

innumerable gin palaces and beershops—in reference to which the *Times* says that “in other parts of the world may be seen the frenzy of an African when excited by rum, the contortions of an Arab under the influence of hashish, Malays furious from bang, Turks trembling from the effects of opium, or a Chinaman strangely emaciated from inordinate use of the drug, but for a scene of horrid vice and lust and filth and frenzy, all drawn into one pit and there fermenting, a man might search the world all over, and not find a rival to a thriving public-house in a low gin-drinking neighbourhood.” I firmly believe he would not have found it in Greece. And just as firmly do I believe that there was not so much drink-made madness in Greece as in England, in Athens as in London.

The festivals in honour of Bacchus must have exerted a baneful mental influence upon the Greeks. It is impossible to doubt that even permanent insanity sometimes resulted from the excessive excitement—religious and alcoholic—temporarily induced. It is certain also, that some forms of divination must have bordered closely on insanity. The relation between the worship of Bacchus and the prophetic state is not a simple one, for it is difficult to decide how much was due to intoxication merely. Tiresias, the blind seer of Thebes, is represented

by Euripides in the *Bacchæ* as saying of Bacchus, "This god is a prophet,—for Bacchanal excitement and frenzy have much divination in them. For when the god comes violently into the body, he makes the frantic to foretell the future." That this does not refer to intoxication altogether, if mainly, would seem to follow from the next passage, in which he says that the frenzy of Bacchus is also displayed in the terror which sometimes flutters an army when under arms before they touch the spear. King Pentheus tells Tiresias, when he sees him with a thyrsus, that but for his hoary old age he would make him a prisoner for introducing such wicked rites, "for where the joy of the grape cluster is present at a feast of women, I no longer say anything good of their mysteries." To punish the opposition to his worship, Bacchus has rendered Agave, the mother of Pentheus, a victim to the madness by which the Mænads were affected, and he has done the same to her sisters, Ino and Antonoë, who were also opposed to Bacchus. Others have speedily joined them, and they celebrate the rites of the god in the mountains. Pentheus threatens to put a stop to this "ill-working revelry," by hunting these fanatics and binding them in iron fetters. The *Bacchæ* or Mænads are described by a messenger as driven by madness; and no wonder, when we read of them dashing at

everything they came across, one tearing asunder a fat, lowing calf, another a cow, so that hoofs and ribs were thrown wildly about, while myriads of maiden hands assailed and threw down the fierce bulls, dragged children from their homes, and contended with armed men.

Whatever form, then, the Bacchantic excesses assumed—whether a wild, contagious, violent and destructive excitement, or a form of divination—there was an amount of emotional disturbance which may well have actually unhinged some of the minds of those engaged in them.

Defective Nourishment, Poverty, &c., as shown in the Mode of Life.—The style of living in the Hesiodic and Homeric days—the table of the chiefs or even the king—would have presented a very different appearance from that of a luxurious age. The Greeks had then, it seems, only two meals a day. Homer, at least, never mentions more. They had a moderate breakfast soon after the sun rose; and ended the day with a supper, to which they, no doubt, did justice, and slept well, the active muscular exertion in the open air preventing any ill effects—dyspeptic or hypochondriacal—arising from “a heavy supper.” Menelaus makes a feast when Telemachus dines with him, and Homer certainly says (Od. iv., 65):—

“The table groaned beneath a chine of beef,
With which the hungry heroes quell’d their grief.”

But he never, as Dioscorides points out, "put rissoles or forcemeat, or cheesecakes, or omelettes, before his princes, but meat such as was calculated to make them vigorous in body and mind;" and so, too, Agamemnon feasted Ajax, after his single combat with Hector, on a beefsteak; and in the same way he gives Nestor a roast sirloin of beef. And Alcinous, when feasting the luxurious Phæacians, and when entertaining Ulysses and displaying to him all the arrangements of his house and garden, and showing him the general tenor of his life, gives him the same dinner. Homer never once represents either fish or game as being put on the table to eat (see *The Deipnosophists*, Bohn's edit., vol. i., pp. 13-14, 41).

In the heroic age, the relation borne by the poor to the wealthy would probably resemble that of the serfs to the barons in the Middle Ages. Actual poverty, or destitution of the kind with which we are so familiar, would not be likely to prevail, nor in subsequent times would the great slave class in Athens and other cities be what we should understand as a pauper class. That there did exist in Greece a considerable number of poor persons, however, and sufficient poverty to constitute one cause of mental disease, I do not doubt. The popularity of Solon arose in part from his kindness to the poor; the freedmen finding it difficult to make a livelihood in consequence of so

much being done by the slaves. In much later times, also, the poverty existing side by side with wealth and luxury is frequently referred to by Greek writers. Still, there is no proof that at any period were there so many squalid, half-starved, poverty-stricken men and women in Greece as there are in England, in process of manufacture for our county asylums.

Causes chiefly Moral.—It is certain that emotional excitement of various kinds must have exerted no inconsiderable influence upon the Greek brain. The excitement immediately attending war cannot, however, be reckoned among the potent causes of insanity. In a warlike age, the effect would be much less than in an age accustomed to peace. This cause, therefore, except as a means of producing misery and scarcity, cannot be supposed to have induced much mental disease. Political excitement may have unhinged some minds fired with patriotism or ambition. A circumstance meriting notice, as serving to contrast the early period of Grecian history with modern society in England and English-speaking countries, is the relation subsisting between the people and the ruling power in heroic Greece. The authority claimed and secured for the king was of no limited character. The position taken in the *Iliad*, that “the rule of many is not a good thing, let us have one ruler only,

one king, to whom Zeus has given the sceptre and the tutelary sanctions," is shown to be fully borne out by the history it contains, not only proving "the passive, recipient, and listening character" of the general Assembly (the Agora), but exhibiting "a repulsive picture of the degradation of the mass of the people before the chiefs" (Grote, vol. i., p. 464). The treatment to which Thersites was subjected for daring to act an independent part, and venturing to express his own opinion in opposition to that of Agamemnon, so graphically described by Homer, illustrates the servility expected from this professedly popular gathering, in which his companions enjoyed, instead of resenting, the treatment to which he was subjected. The subjection to kingly authority in the assembly here depicted, indicates a condition of society at that period which would not be likely to favour much individual freedom of action, or encourage undue political excitement and mental perturbations. With this repressed and passive state of the people generally, might be contrasted the oligarchies which subsequently arose in Greece. The condition of society of which it is an indication, and which it fosters, marks an advance to a form of civilisation and political life, which, by allowing of and encouraging individual thought and action, more frequently accompanies a loss of balance of the mental powers, than the

opposite state of passivity. Thus, as might be expected, we find the very important and significant fact that political power had lost, according to the historian of Greece, "its heaven-appointed character," and consequently "the ground was laid for those thousand questions which agitated so many of the Grecian cities during three centuries." He tells us that they elicited "much profound emotion, much bitter antipathy, and much energy and talent." In the days of Pericles there may have occurred as much, or nearly as much, excitement in Athens as there was in London at the time of the Reform Bill, or in Paris in 1848. In the above description, we have unquestionably those elements of modern civilised society which act so powerfully on the minds of men, excite such active thought, arouse such intense feeling, and which, while invaluable in counteracting dead-levelism, increase the liability to a loss of mental balance. We believe that these influences were more limited than in France or England in the present century, even when we have regard to the most active periods of Greek life, but it must be admitted that the political intrigue and lust of power which existed not only in Athens, but in the small free towns, must have both stimulated the activity of thought, and excited the emotions; indeed, Mahaffy goes so far as to say that politics corroded the social life

as well as the literature of Periclean Greece. The profound philosophical and religious questions which stirred the thinking men of Athens in her palmy days must not be overlooked here ; some minds, it may reasonably be supposed, went astray,—lost in the bewildering mazes of speculative thought.

Among moral causes, the share played by licentiousness among the Greeks cannot be regarded as inconsiderable. We have touched upon it already in connection with Mænad madness. Insanity from this cause must have been far from rare. The chivalry of the Greeks has been described by Mr. Symonds as a compound of military, amatory, and patriotic passions, meeting in one enthusiastic habit of soul ; only differing in his view from mediæval chivalry in its being “patriotic,” where the latter was “religious,” but, as a *Saturday Reviewer* points out, this combination when it occurred was accidental with the Greeks, while with the mediæval knights, the object of their affection represented the entire sex to which that object belonged, and they became the protectors of innocence and weakness ; but to place the friendship of Greek men among the elements of chivalry is unfounded, and may be compared to planting the image of a satyr amid the shining synod of Olympus. “The introduction of the word ‘amatory’ into the charac-

teristics of the Greek ideal betrays the rotten spot, while it seeks to cover it with a bold ambiguity."

Thirlwall draws the inference from the character of the stories of their gods, that female purity was not very highly valued, and that the faithlessness of the wife was neither rare nor regarded with much disfavour; while Mahaffy points out that the Homeric lady was the property of the stranger, so that much delicate feeling vanished in practice, notwithstanding the ornamental outside. He criticises, however, those writers who in forgetfulness of the splendid characters which figure in the tragedies of Euripides and other dramatists, regard the morality of the Athenian women with disgust, and fancy that the most refined civilisation could have existed alongside with the worst possible demoralisation of domestic relationship.

Intellectual Strain.—Recurring to the doubtful practice of the art of writing in the Homeric age—Grote maintaining that the *Iliad* was handed down orally for some two centuries, and that no reading class existed in Greece until the middle of the seventh century before Christ, the intellectual food of the nation consisting not of true history or philosophy, but mythical tales—we need not hesitate to dismiss the idea of intellectual strain as a cause of insanity at that period in Greece. Epic poetry was the "solitary jewel" of the heroic age. The people were, the above

writer considers, poetical and religious at that period—not reflective or philosophical, although, even then, displaying much mental vigour. In regard to mere school education among the Greeks, this, of course, must have varied at different periods, but, when it reached its highest point, its range and amount must have been within very narrow limits indeed, compared with the extent of learning demanded in the present age. We have no reason to think the brains of children were injured by early forcing, or that an enfeebled nervous system often resulted from the course of study pursued, sending its possessor out into the world less able to meet its cares and perplexities. The passage from Aristophanes below does not refer to study. It has been maintained that, from a moral point of view, the Greek parents acted more carefully and wisely than we do, for that, instead of casting their sons into public schools, where they lose alike their simplicity and their innocence, they placed them under the strict supervision of a slave tutor—in short, a male duenna (Mahaffy). This involves, however, a moral rather than an intellectual element. Obedience to parents was implicit, and the scholar was very docile. Even in his day, Aristophanes, in *The Clouds*, makes the “Better Cause” complain of the degeneracy of youth in these and other respects. In the good old days it was incumbent that no one should hear

a boy utter a syllable, still less contradict his father : that he should march to the harp-master's school unprotected from the snow, though it fell as thick as meal : that he should not sit cross-legged : and that he should be well thrashed if he made mistakes—a system, it is contended, which made the men who fought at Marathon. The “Worse Cause” considers such a youth would be a booby. The “Better Cause” replies that, under the old system, he would have a stout chest, a clear complexion, broad shoulders, and a little tongue ; while “the youths of the present day” pursue a course likely to produce a narrow chest, a pallid complexion, small shoulders, and a big tongue ; they have to be carefully wrapped up, they are not to be found blooming in the gymnastic schools, but chattering in the market-place, or dragged into court. The days have gone by when it was not allowed, if one was dining, for youth to snatch from their seniors dill or parsley, or to eat fish, or to giggle, or to keep the legs crossed ! “Happy,” says the Chorus, “were those who lived in those days, in the times of former men !” The absence of any intellectual requirements on the part of the women has been pointed out by Mahaffy, who has shown that ladies of rank at Athens, and in other cities, had not enough education to shine in conversation.

Although, therefore, during the most brilliant

period of Greek literature there must have been much active culture of the mind, and while the study of philosophy must have taxed the mental powers of a certain number, while I doubt not there were some heads that ached from deep thought, and that "much learning" may have made one "mad" here and there, I do not think that over-study, or rather, the accompaniments of over-study, can be credited with much influence as a cause of mental disorder in Greece.

Glancing back now on the various causes of mental disease in their relation to Greek life, it is unquestionable that they must at certain periods have exerted a considerable influence. Intemperance in general, Bacchanalian orgies, vicious habits, cannot fail to have induced attacks of lunacy. At the same time there is no proof of that chronic besotted drunkenness, and the half-starved families associated with it, which distinguish our pauper population; and therefore there is no doubt a difference in degree between the influence exerted by intoxication and mal-nutrition in Greece, at any period, and in England. Of other causes, those of a moral nature, and associated with excessive refinement, susceptibility, self-dissection, morbid religious feelings, the Greeks may well have experienced the effects to a certain extent; to *what* extent it is impossible to determine, but we do not think that moral

causes of this nature were so powerful as in the present day. It is also probable that the causes of insanity exert a cumulative effect, and in this way later generations of men are actually more susceptible to influences of the same morbid intensity.

CHAPTER IV.

AMONG THE ROMANS.

I PROCEED now to consider Roman life in relation to the causes of mental disease. Many of the observations I have had occasion to make in reference to the Greeks apply to the Romans, not only because there are broad features common to any two nations in their course onwards to civilisation, but because from Greek sources Roman culture and refinement were largely drawn. In the latter nation as in the former, our inference from manner of living as to the probability of the prevalence of insanity among the people, must be affected by the period of her history which we have in view, namely, whether the early and not highly cultivated age, extending from the foundation of the city to the third century B.C., or the later and ever increasingly luxurious age comprising the two centuries before Christ and imperial Rome. In the first period, an age of hardihood and simple manners, we should not look for the development of subtle nervous affections born

of luxury. These were "the brave days of old," when the goodman mended his armour, and the goodwife's shuttle went merrily flashing through the loom; before the days of imperial extravagance, in which it may safely be inferred that greater psychological evils were fostered and grew than we deplore in modern forms of luxurious life.

Plautus abounds with illustrations of Roman luxury. In one of his comedies, *Aulularia*, Megadorus complains of a wife saying that as she brought a dowry much greater than her husband's wealth, he must find her purple and gold, mules, lackeys, pages to carry compliments, and carriages; but all this is light compared with what a wife asks for her allowance, required for the embroiderer, goldsmith, dealers in figured skirts, dyers in flame-colour and violet, perfumers, sandal-makers, boddice-makers, &c. Three hundred duns make their appearance, and have to be paid. "You would think them got rid of by this time," he says, "when dyers in saffron colours come sneaking along, or else there's some horrid plague or other which is demanding something." The tax gatherer appears on the scene; her husband, however, is now in debt to the banker, the tax cannot be paid, and he is in despair.

Intoxication.—In the early days of Roman life drunkenness was no doubt much less common

than in the days of her luxury. Wine was not easily procured and was costly. Its principal use was in pouring out libations to the gods and at sacrifices, on which occasions alone, women and young men under thirty years of age were allowed to drink it. Ovid refers to the relaxation of this rule in the reign of Tarquinius Superbus.

In later periods of Roman history, drunkenness was a well-known vice. It is very difficult, however, to decide to what extent it really prevailed. In high life there was a time when men gloried in intoxication and endeavoured to heighten its effects by adding to their ordinary wine aromatic ingredients. If at feasts the proper and more usual course of having a director was not adopted, it was permitted to the guests to drink *ad libitum*, and though not thought right, they doubtless drank to excess. In regard to low life, I do not know that there is any evidence to prove that drunkenness prevailed, at the worst period of Roman history, to the same extent as among the lower classes of England. There were public-houses—thermopolia—no doubt, where not only hot water but all kinds of liquor were vended. They appear to have been frequented in much the same way, according to Adam, as our modern coffee-houses, and there were a considerable number of them even during the Republic. Their abuse, in the way of intoxication, might be argued from the restrictions

put upon them, but these partly arose from a dread of political clubbing.

Among other proofs that the Romans were by no means free from this vice, reference may be made to the facts, that Seneca himself thought it allowable to get drunk to ease the mind of any great and tormenting care, that Cato of Utica spent sometimes whole nights in drinking, and that, as regards the elder Cato and Corvinus the Stoic, the former often enlivened and invigorated his virtue by wine, and that the latter, though tinged with Socratic principles, was by no means an enemy to the wine cask (*Vide* Potter's *Antiquities*).

Among the Romans, as with the Greeks, the influence of Bacchanalian rites must have exerted a prejudicial effect upon the mind. A Greek of mean condition, a priest of secret and nocturnal rites, imparted a knowledge of them to great numbers, both men and women, according to Livy. "To their religious performances," he says, "were added the pleasures of wine and feasting." Debaucheries of every kind were practised. The infection spread so far and so rapidly that Livy compares it to "the contagion of disease." To think everything lawful was the grand principle of their religion. One passage in the description given by an informer is particularly significant. "The men, as if bereft

of reason, uttered predictions, with frantic contortions of their bodies ; the women, in the habit of Bacchantes, with their hair dishevelled, and carrying blazing torches, ran down to the Tiber, where, dipping their torches in water, they drew them up again with the flame unextinguished, being composed of native sulphur and charcoal" (Bk. xxxix., c. 7 and c. 14). In the speech made by one of the Consuls to the people, he said that these orgies had existed for some time in every country in Italy, and at that time in many parts of Rome ; in proof of which he refers to the nightly noises and horrid yells resounding through the whole city. He asserted that there were many thousands—a great part of them being women, the rest men—"night revellers driven frantic by wine ; noise of instruments, and clamours. . . . If you knew at what age the males are initiated, you would feel not only pity but also shame for them. Romans ! Shall these, contaminated with their own foul debaucheries and those of others, be champions for the chastity of your wives and children ? Each of you ought to pray that his kindred may have behaved with wisdom and prudence ; and if lust, or if madness, has dragged any of them into that abyss, to consider such a person as the relation of those with whom he has conspired for every disgraceful and reckless act, and not as one of your own." The

decree of the Senate that all places where the Bacchanalians held their meetings should be demolished throughout Italy, and that in future none of their rites should be celebrated (subject to certain overpowering religious scruples in regard to the omission of the worship of Bacchus !), shows the frightful excesses which were committed—excesses unquestionably calculated to cause madness. Many were put to death. Here we see, as in several parallel instances, that in antiquity, not only in savage life, but in the condition of society among the ancients we call civilised, the violent termination of existence continually prevented the development of those morbid psychological conditions which are constantly attaining a full growth among ourselves, because they are not cut short by death. We can show that the causes of insanity were certainly present in considerable force at some periods of the history of the nations of antiquity, but still it does not follow that these causes always produced their legitimate fruit; on the contrary, as a matter of fact, they must have been often checked in their course by events certain to happen in certain conditions of society, and from which modern civilisation is in great measure exempt. In close connection with this is the fact, capable of large amplification, that homicidal tendencies, which in modern societies frequently land their possessor in an asylum, would in ancient

societies find an outlet in the constant opportunities afforded by war.

Defective Nourishment, Poverty, &c.—The sure coincidence of a certain amount of poverty and great wealth did not escape the notice of the Roman poets, and there can be no doubt that, during the most civilised period of the history of Rome, there existed in strong relief the two extremes of riches and poverty—perhaps as marked as between Belgravia and the Seven Dials in our own day—and that mal-nutrition, unwholesome dwellings, and the like, exerted a very appreciable influence in causing unstable brains, degeneration of nervous power, and actual idiocy. Merivale, when showing that the dignity of the Roman temples and palaces stood in marked contrast with their cabins, says, “The spacious avenues of Nero concealed, perhaps, more miserable habitations than might be seen in the narrow streets of Augustus.” He observes that up to the time when symptoms of the decline of the Empire appeared (A.D. 180), “we have no distinct murmurs of poverty among the populace.” The causes, according to him, were already at work, which in the second or third generation reduced the people of the towns to pauperism, and made the public service an intolerable burden, namely, the decline of agriculture and commerce, the isolation of the towns, and the disappearance

of the precious metals. It appears that under the Flavian emperors there was a sudden adoption of the policy of administering public aid to impoverished freemen. There is another point closely connected with poverty, and that is the heavy taxation to which the subjects of Rome were subjected—the system of farming out taxes leading to great abuse and extortion. The historian already cited asserts, indeed, that at no period within the sphere of historic records was the Commonwealth of Rome anything but an oligarchy of warriors and slave-owners, who indemnified themselves for the restraint imposed on them by their equals in the Forum, by aggression abroad and tyranny in their household. While Gaius Verres held authority over Sicily, 59 per cent. of the farmers in the most fertile parts—and these for the most part Roman burgesses—ceased to cultivate their fields, and suffered privation on account of the oppression to which they were subjected. Oppression is said to drive wise men mad, and no doubt oppression and impoverished homes did drive not a few mad among the Romans.

Causes chiefly Moral.—As regards these we find frequent complaints among the Roman writers that, with increased civilisation and luxury, the habits and manners of the people changed from what they in the main were during the early

period of Roman history to which we have referred. There is the well-known contrast drawn by Horace between the youth of his age and those of the days in which they repulsed Hannibal. How bad, how base, he considered his own generation, though he did not think it had reached the lowest depth of degradation, for the downward current was so strong, that he contemplated the sons of that generation would be guilty of crimes unknown even to it. And half a century later, his expectation seems to have been fulfilled, for Juvenal asserted that posterity could not possibly add anything to the immorality then rampant :—

“ Nothing is left ; nothing for future times
To add to the full catalogue of crimes.
Vice has attained its zenith,” &c.

Of the “ golden age,” it may be emphatically said that all is not gold that glitters. It did not seem so, as Professor Seeley observes, except to the Court poets. “ On the contrary, they said it was something worse than an iron age ; there was no metal from which they could name it. Never did men live under such a crushing sense of degradation, never did they look back with more regret, never were the vices that spring out of despair so rife, never was sensuality cultivated more methodically ;” and after remarking that if

morality depended on laws, or real happiness on comfort, there never would have been a more glorious age ; he adds, " It was, in fact, one of the meanest and foulest." It is scarcely necessary to seek for further evidence on this point, so clear does it seem that there must have been a mode of life at this time unfavourable to healthy mental action, and that the "causes chiefly moral" of insanity must have been in operation in very considerable force ; but I cannot avoid adding the dire picture drawn by Quintilian of the moral training of his day. "Would that we ourselves," he exclaims, "did not corrupt the morals of our children ! We enervate their very infancy with luxuries. That delicacy of education which we call fondness weakens all the bodily and mental powers. What luxury will he not covet in his manhood who crawls about on purple ! He cannot yet articulate his first words when he already distinguishes scarlet and wants his purple. We form the palate of children before we form their pronunciation. They grow up in sedan chairs ; if they touch the ground they hang by the hands of attendants, supporting them on each side. We are delighted if they utter anything immodest. Expressions which would not be tolerated even from the effeminate youths of Alexandria we hear from them with a smile and a kiss." Quintilian says that all this is not wonder-

ful, for they themselves had taught them; they had heard the language from their parents. From the shameless practices they witnessed at home their habits and very nature were formed. "The unfortunate children learn these vices before they know that they are vices; and hence, rendered effeminate and luxurious, they do not imbibe immorality from schools, but carry it themselves into schools." Such a training as this must have surely sapped the mental constitution, and where it did not act as a direct cause of insanity must have often indirectly led up to it, in the enfeebled nervous system induced, little fitted to bear the shocks of life; and in the tendencies transmitted to posterity.

Take a later period of Roman history. A good illustration of the state of society, in its bearing on the causation and evolution of mental disorder, at the latter end of the fourth century, occurs in the poetical books of Claudian against Rufinus, an avaricious and ambitious man, who died A.D. 375. Ample proof is afforded of a condition of mental life which may reasonably be supposed to have not unfrequently caused insanity. The struggle between contending emotions must have often been great. The poet speaks of the discord which is the nurse of war, of imperious famine, of fretful disease, of pale envy, lamentation, fear, of spendthrift luxury, and of the sad

want which closely follows in its train, with shuffling pace :—

“And last of all, and dreariest of their race,
Clasping their mother Greed’s polluted breast,
The endless swarm of cares that know no rest.”¹

This graphic description of their “cares” marks a state of society too much like that of modern life to allow us to doubt that the people of that day were suffering from some of the same brain-distracting elements of highly wrought civilised life as ourselves, and that many men and women became insane; far more than in the early age of Roman history. Well might Claudian assert that he whose life needs the least is in truth the best, and that—

“Natura beatis
Omnibus esse dedit, si quis cognoverit uti.”

Intellectual Strain.—An examination of the character of school learning among the Romans proves two things : first, that the area or range of learning was only limited, at best ; but, secondly, that fears were sometimes expressed even then that ill effects might result from over study ; nor were school-boy sorrows altogether unknown.

It would seem that little more was taught than

¹ From a MS. translation by Thomas Hodgkin, B.A., kindly placed at my disposal.

reading, writing, and arithmetic, Greek and Latin grammar, and the recitation of their own poets. School must have sometimes been, indeed, what one meaning of the word indicated among the Greeks—leisure, if not idleness. Juvenal criticised the schooling of his day as consisting of little more than teaching who nursed Anchises, how long Acestes flourished, and the like. Quintilian gives some questions asked at school, as—Why Venus among the Lacedemonians was represented armed? Or, why Cupid was thought to be a boy, and winged, and armed with arrows and a torch?

Meagre, however, as was the school lore of that age, Quintilian found it necessary to reply to some in his day who feared the pupils' minds were overstrained by too hard work. He derides the alleged danger of cramming youths with knowledge, observing that there are those who maintain that the mind must be confused and wearied by so many studies of different tendencies, "for which neither the understanding nor the body nor time itself can suffice;" and replies "that such do not understand how great the power of the mind is; that mind which is so busy and active, and which directs its attention, so to speak, to every quarter, so that it cannot even confine itself to do only one thing, but bestows its force upon several, not merely in the same day, but at the same moment;"

and he further makes the interesting remark, "It is by no means to be apprehended that boys will be unable to bear the fatigue of many studies, for no age suffers less from (mental) fatigue" (Bk. i., chap. xii.) It seems, however, that some ladies even in Juvenal's day, strove to cultivate their minds; not being content with the knowledge they could acquire at school. He was much scandalised at their doing so, calls such women intolerable, and trusts his wife may never stuff her head with the subtleties of logic.

"Enough for me, if common things she know,
And boast the little learning schools bestow."

I have said that the Roman scholar had his sorrows; there was a cane then as now which had no sugar in it. At any rate it was so at the period when the boy Augustine lived and schooled. He says he did not love study and hated to be forced to do it. He disliked Greek, and thought the three R's as great a punishment. "Homer was bitter to my boyish taste, and so I suppose Virgil would be to Grecian children, when forced to learn him, as I was Homer. I was urged vehemently with cruel threats and punishments." Much more might be cited from his *Confessions*, which is full of interest, but we must restrict ourselves to the following passage, bearing directly on our inquiry:—"I was put to school to get

learning, in which I (poor wretch) knew not what use there was; and yet if idle in learning, I was beaten. For this was judged right by our forefathers; and many passing the same course before us framed for us weary paths through which we were to pass; multiplying toil and grief upon the sons of Adam."

In spite, however, of Augustine's complaints, and the misgivings of those to whom Quintilian refers, I think we cannot set down an overtaxed brain from prolonged study, sleepless nights, dread of examination, and feverish emulation for prizes, or disappointment and chagrin at failure, as, probably, serious causes of insanity among the Romans. Suicides were frequent from trivial causes, and to escape the sufferings of incurable illness; but we should seek in vain for any passage in the Latin writers similar to one which appears as I write, in a London paper, commenting severely on the injury done by modern examinations, on the occasion of the suicide of a University College student from this cause. It is said to be the ninth in the Metropolis by students (some Orientals) during the present year.¹

¹ The paper maintains that it behoves the authorities of the University of London to beware how they drive poor students to seek a place where examiners cease to trouble, and the weary student is at rest. "At present, what with the multiplicity of subjects, the constant alterations in books, and the unending changes in examiners, it is no wonder if the poor fellows are

In conclusion, if—after the necessarily imperfect sketch we have drawn of the psychological bearings of ancient history, as to the prevalence of the main causes of insanity—we endeavour to draw a general conclusion, we appear to be warranted in saying that mental disease was not likely to be largely developed among the primitive races, that the causes of mental disorder must have exerted a very considerable influence upon the four important nations referred to, less in their earlier, much greater in their later and highly organised condition. Probably these causes were not so influential among the Egyptians and Jews as the Greeks and Romans, taking the period most unfavourable to mental health in each nation, and probably less so among the Greeks than the Romans.

In favour of the nations of antiquity as compared, let us say, with England, may be enumerated less dram and beer drinking, and fewer half-starved and diseased children *reared*. The class of paupers from our large towns and the agricultural districts which fill our county asylums were certainly not to be found either in the primi-

sometimes in distraction. It has sometimes been said that we shall never get rid of railway accidents till a Bishop is killed ; and it suggests the question, how many students must commit suicide before the authorities introduce a more humane and rational system of examination.

tive races or the early stage of civilisation of the above nations. Nor have I been able to detect an exactly corresponding class—in degree at any rate—in the subsequent complex social state of these nations, whether at the height or decline of their civilisation. The patients from this class are those who would be regarded by Dr. Richardson as the victims of mental stagnation, perhaps it would be more correct to say of the unfavourable moral surroundings and the injurious habits of persons of this description—conditions undoubtedly far more deleterious, psychologically, than any amount of mere intellectual strain. Again (and this bears upon the production of higher and middle-class lunacy) there was less intense competition and fewer great commercial speculations and failures, less struggle between the animal nature and moral feeling—a very important difference—less morbid self-consciousness and dissection, a less highly-wrought nervous system, and less susceptibility, therefore, to impressions calculated to upset the mind. It is certain, however, there must have been a period when moral and physical influences were not only highly unfavourable to the healthy action of the emotions, but in some respects even more so than in England now, because not counterbalanced by the superior religious influences at work in our own country. A nation steeped in moral corrup-

tion, as, for instance, the Roman Empire was at its worst, must be regarded as very liable to the production of those mental diseases which have an immoral ætiology. On the other hand, the very benevolence and consideration which a humane nation like the English displays towards the poor, and those of feeble mind, or who are becoming insane, instead of allowing them to perish, favours alike the accumulation of insane persons, and the propagation of the disease by such, before they are placed in restraint or after their recovery. Feeble mental constitutions perished by the way in Egypt; sons probably affected with moral insanity, as evinced by disobedience to parents, &c., were stoned to death in Palestine; homicidal men killed and were killed in the wars of Greece and Rome, and defective children were thrown down the Tarpeian rock. There was not, therefore, so much feebleness, moral insanity, or homicidal impulse transmitted to the next generation in the old heathen or Jewish, as compared with modern Christian populations. Indeed, the more ancient history in all its psychological bearings is examined, the more will it appear that the explanation of the fact—which we have no doubt would be established could we have before us the actual census of insane persons in these ancient countries, on the one side, and that of modern Europe on the other, viz., that the number of the latter would

far exceed that of the former—lies largely in the direction here indicated. In short, the rapid clearing off or stamping out of cases of mental deficiency or derangement, whether by neglect, capital punishment, or war, is a most important fact supplementing all I have said as to the primary question of the prevalence of the causes of insanity among the nations of antiquity.

PART II.

INSANITY IN RELATION TO MODERN LIFE.

CHAPTER V.

INSANITY CHIEFLY IN RELATION TO THE WORKING CLASSES.

THE relation between modern civilised life and insanity cannot be regarded as finally determined, while a marked difference of opinion exists in regard to it among those who have studied the subject; nor can this difference be wondered at by any one who has examined the data upon which a conclusion must be formed, and has found how difficult it is to decide in which direction some of the evidence points. Statistics alone may prove utterly fallacious. Mere speculation, on the other hand, is useless, and indeed is only misleading. It is a matter on which it is tempting to write dogmatically, but where the honest inquirer is quickly pulled up by the hard facts that force themselves on his attention. Nothing easier than to indulge in unqualified denunciations of modern society; nothing more difficult than a cautious attempt to connect the social evils of the present day with the statistics of lunacy. Nothing easier

than to make sweeping statements without proof, nothing more difficult than to apportion the mental injury respectively caused by opposite modes of life; totally diverse social states of a nation often leading to the same termination—insanity. These are closely bound together in the complex condition of modern civilised society. No doubt if we care for truth, and avoid rash assertions, we do it at the expense of a certain loss of force and incisiveness. Dogmatic statements usually produce more effect than carefully-balanced and strictly logical positions. Honesty, however, compels me to speak cautiously, and to confess the difficulties to which I have referred.

I shall not here enter at length into the question which is at once raised by an inquiry into the relation between modern life and insanity—whether lunacy is on the increase in England. Twenty years ago there was one lunatic or idiot officially reported to 577 of the population; the latest returns place the ratio as high as 1 in 370. Were we to go further back, the contrast would be far greater. That the increase of known cases of insanity has been very great, no one, therefore, disputes. Further, that the attention paid to the disease; the provision made for the insane; the prolongation of their lives in asylums, the consequent accumulation of cases, and other circumstances which I shall mention in a future chapter,

account for the greater part of this alarming apparent increase, is certain. Whether, however, there is not also an actual increase, unaccounted for by population, or by accumulation, remains an open question, which statistics do not absolutely determine. At the same time I think that it is quite probable that there has been some real increase. (See Chapter VII.)

To what social class do the great mass of our lunatics belong, and to what grade of society does the striking apparent increase of the insane point? The large majority of lunatics under legal restraint undoubtedly belong to the pauper population. On the 1st of January, 1877, of the total number of patients in asylums and elsewhere (in round numbers 66,600), about 59,000 were pauper, and only 7,600 private patients. These figures, however, fail to convey a correct statement of the relative amount of insanity existing among the class of the originally poor and uneducated masses and the class above them, because in a considerable number of instances, members of the middle and still higher classes have become paupers. Again, the wealthy insane remain very frequently at home, and do not appear in the official returns. I believe this class to be very large. Probably we get a glimpse of it from the Census of 1871, which contained 69,000 lunatics, idiots, and imbeciles. We have good reasons for knowing that

this return was very far short of the truth, yet it exceeded the number given by the Lunacy Commissioners, in the same year, by 12,000! A large number no doubt lived with their families because these could well afford to keep them at home. None would be in receipt of relief, or they would have appeared in the Commissioners' Report. Another most important qualifying consideration remains—*the relative numbers of the classes of society from which the poor and the well-to-do lunatics are derived*. Several years ago, the Scotch Commissioners estimated the classes from which private patients are derived at only about an eighth of the entire population of Scotland; a proportion which would make them at least as relatively numerous as the pauper lunatics. No doubt in England the corresponding class of society is a larger one; but whatever it may be,¹ a calculation based upon the relative proportion of different social strata in this country would vastly reduce the apparent enormously different liability to insanity among the well-to-do and the poorer sections of

¹ I am informed by Dr. Farr that the proportion between the upper and middle classes on the one hand, and the lower classes on the other, is as 15 to 85. Calculated on this basis, the proportion of private and pauper lunatics to their respective populations, would be 1 in 484 for the former, and 1 in 353 for the latter—a very different result from that obtained by the usual method of calculating the ratio of private and pauper lunatics to the whole population, viz., 1 in 3,231, and 1 in 415.

the community, although, with this correction, the pauper lunatics would still be relatively in the majority.

The disparity between the absolute number of pauper and private patients has greatly increased in recent years. In other words, the apparent increase of insanity is mainly marked among those who become pauper patients. This is certainly in great measure accounted for by the disproportionate accumulation of cases in pauper asylums, for reasons which specially affect this class of the community. It assuredly does not prove that there has been anything like a corresponding growth of insanity among the poor as compared with the rich.

In any case, however, the illiterate population does yield a very serious amount of insanity, and the fact is so patent that it shows beyond a doubt that ignorance is no proof against the inroads of the disease. The absence of rational employment of the mental powers may lead to debasing habits and to the indulgence in vices especially favourable to insanity, less likely to attract a mind occupied with literary and scientific pursuits. No doubt mental stagnation is in itself bad, but the insanity arising out of it is more frequently an indirect than a direct result. If a Wiltshire labourer is more liable to insanity than other people, it may be not merely because his mind is in an unculti-

vated condition, but rather because his habits,¹ indirectly favoured by his ignorance, and the brain he inherited from parents indulging in like habits, tend to cause mental derangement. It is conceivable that he might have had no more mental cultivation, and yet have been so circumstanced that there would have been very little liability to the disease. This distinction is extremely important if we are tracing causes, however true it would remain that ignorance is a great evil. A South Sea Islander might be much more ignorant than the Wiltshire labourer and yet not be so circumstanced that he would be likely to transgress the laws of mental health. The ignorance of an African tribe and that of a village in Wilts may be associated, the one with very little, the other with very much lunacy. Mr. Bright's "residuum" of a civilised people, and a tribe of North American Indians are alike uneducated, but, notwithstanding, present totally different conditions of life. We have no doubt that in a civilised community there will always be found by far the larger number of insane persons. There are three grand reasons for this. First, because those who do become insane or are idiotic

¹ Dr. Thurnam, the late superintendent of the Wilts County Asylum, found that the proportion of cases caused by drink in this county was very high—in one year (1872) amounting to 34 per cent.

among savages, "go to the wall" as a general rule; the other reasons are to be discovered in the mixed character and influence of European civilisation; its action on the one hand in evolving forms of mental life of exquisite delicacy and sensibility, easily injured or altogether crushed by the rough blasts from which they cannot escape; and on the other hand in producing a state confounded, as I have said with savagery, but which differs widely from it, and is, simply in relation to mental disorders, actually worse. Recklessness, drunkenness, poverty, misery, characterise the class; and no wonder that from such a source spring the hopelessly incurable lunatics who crowd our pauper asylums, to the horror of ratepayers, and the surprise of those who cannot understand why the natives of Madagascar, though numbering about 5,000,000, do not require a single lunatic asylum. I may add that they do not destroy the few insane and idiots which they have.

It is constantly forgotten that while there is nothing better than true civilisation, there is something worse than the condition of certain savages, and that almost anything is better than that stratum of civilised society which is squalid, and drunken, and sensual; cursed with whatever of evil the ingenuity of the civilised man has invented, but not blessed with the counteracting

advantages of civilisation. This conclusion, so far from damping the efforts of progress and modern developments of science, should stimulate us to improve the moral and physical condition of this class, and so lessen the dangers to mental disorder among them. The belief that savages are free from some of the insanity-producing causes prevalent in modern civilised England, is quite consistent with the position taken in this work, that education, ample mental occupation, knowledge, and the regularly trained exercise of the faculties exert a highly beneficial influence upon the mind, and thus fortify it against the action of some of the causes of insanity.

Alternately swayed by the evidence which presents itself, now in the higher, now in the lower ranks of society, of the fearful consequences of certain lines of conduct and living, alike ending in insanity, we seem at one time driven to the conclusion that a refined and over-civilised life, and at another that an unlettered one, most favours the spread of mental disorder. The right conclusion is, however, that both present their peculiar perils in different forms, but that the latter, in that form in which it displays itself in England, produces the largest amount.

That agents exciting the emotions and so causing madness, are to be found in tremendous force in European civilisation, admits of no doubt.

The atmosphere which the Englishman and the Frenchman breathe is full of psychological germs calculated to infect his nervous system with disease, whether arising from the commercial, the political, or the religious world. Hopes and fears appealing to the deepest motives of our nature, political excitement, producing tumults of passion and bitter feeling, commercial waves of good and bad fortune, causing alternately intense joy and as intense disappointment and chagrin, all these acknowledged dangers confronting the healthy mental equilibrium, surround the daily life of the denizen of the world of to-day. On the other hand, in regard to the poorer and unlettered classes, the teaching of lunacy statistics points to two facts ; that wherever there is most pauperism, there, as a general rule, will be the largest amount of insanity ; not merely because insanity pauperises, but because mal-nutrition and the manifold miseries attendant upon want favour the development of mental disease ; and that here intemperance stands out in lurid relief, as the foremost cause of the disorder.

The relative liability of manufacturing and agricultural districts to mental disease has excited much discussion. This has partly arisen from the assumption that the latter may be taken as the representative of savagedom. As we have shown this to be false, the comparison between

these two districts does not, from this point of view, possess any value. On other grounds, however, it would be very interesting to determine whether urban or rural lunacy is most rife. Here, however, the worthlessness of mere statistics is singularly evidenced, and the difficulty of accurately balancing the weight of various qualifying circumstances becomes more and more apparent. An agricultural county may be found here and there with less lunacy than a manufacturing county, but if a group of counties be taken in which the manufacturing element is greatly beyond the average, and another group in which the agricultural element greatly preponderates, we find one lunatic to 463 of the county population in the former, and one to 388 in the latter, showing an *accumulation* of more insane paupers in the agricultural districts. But it is very possible that if we knew how many *become* insane, the result would be very different indeed. This, in fact, has been found to be the case in Scotland, where the Lunacy Commissioners have taken great pains to arrive at the real truth. In a recent Report it is shown that while three Highland counties have, in proportion to the population, a decidedly heavier persistent burden of pauper lunacy than two manufacturing counties which are chosen for comparison, the number of lunatics receiving relief—that is, actually coming under

treatment—is proportionally larger in the latter than in the former. In other words, the proportion of fresh cases of pauper lunacy appearing on the poor-roll is higher in urban than rural districts. The Commissioners refer this result partly to the greater prevalence of the active and transitory forms of mental disorder—cases which before long are discharged—and partly to the greater facility of obtaining accommodation in an asylum free of charge in a city, from its being at hand; and the greater wealth of the urban districts offering no obstacle to admission. They attribute the above-mentioned persistent rural lunacy chiefly to the constant migration of the strong from the rural to the urban districts; the necessary exodus of the physically and mentally healthy leaving behind an altogether disproportionate number of congenital idiots, imbeciles, and chronic insane, in the agricultural counties. Hence, returning to England, it is quite clear that the mere ratio of accumulated pauper lunacy to the county population, which is constantly relied upon, proves little or nothing as to the relative liability to insanity of the agricultural and manufacturing districts. One conclusion only can be safely drawn from such figures, until minute investigation has been made into the circumstances attending rural and urban lunacy in England as has been done in Scotland—namely, that while theory is apt to

say that a country life, passed, as it seems to be supposed, in pastoral simplicity, will not admit of the entrance of madness into the happy valley, fact says that whatever may be the ultimate verdict as to the relative proportion of urban and rural lunacy, a large amount of insanity and idiocy does exist in the country districts, and that the dull swain with clouted shoon but too frequently finds his way into the asylum.

A glance at the annual Reports of our lunatic asylums reveals the main occupations of the inmates and the apparent causes of their attacks. In a county asylum like Wilts the great majority of patients are farm labourers, with their wives and daughters; and next in order, domestic servants and weavers. The number of farmers, or members of their families, is small. The character of the occupations in the population of an asylum like that for the borough of Birmingham of course differs. Here we find mechanics and artizans heading the list, with their wives. Those engaged in domestic occupation form a large number. Shopkeepers and clerks come next in order. In both asylums are to be found a few governesses and teachers. Innkeepers, themselves the cause of so much insane misery in others, figure sparingly in these tables.

Among the causes, intemperance unmistakably takes the lead. This is one of those facts which,

amid much that is open to difference of opinion, would seem to admit of no reasonable doubt. Secondly follows domestic trouble, and thirdly poverty. At the Birmingham Asylum, out of 470 admissions in three years, eleven cases were attributed to "over application"—a proportion much lower than that observed in private asylums.

Recently, Mr. Whitcombe, assistant medical officer at the Birmingham Borough Asylum, has done good service by publishing the fact that, during the last twenty-five years, out of 3,800 pauper patients admitted into that asylum, 524, or 14 per cent., had their malady induced by drink, and that the total expenditure thus caused by intemperance amounted, in maintenance and cost of building, &c., to no less than 50,373*l.* during that period.

Some years ago I calculated the percentage of cases caused by intemperance in the asylums of England, and found it to be about twelve. This proportion would be immensely increased were we to add those in which domestic misery and pecuniary losses owed their origin to this vice. Although ratepayers grumble about the building of large lunatic asylums, it is amazing how meekly they bear with the great cause of their burden, and how suicidally they resent any attempt made to reduce by legislation the area of this widespread and costly mischief.

It is worthy of note that drink produces much

less insanity in Warwickshire outside Birmingham than in Birmingham itself.

In connection with this aspect of the question, an interesting fact, recorded by Dr. Yellowlees, when superintendent of the Glamorgan County Asylum, may be mentioned: that during a "strike" of nine months, the male admissions fell to half their former number, the female admissions being almost unaffected. "The decrease is doubtless mainly due to the fact that there is no money to spend in drink and debauchery." High wages, however, would be infinitely better than strikes, if the money were spent in good food, house-rent, and clothing.

The diet of the children of factory operatives in Lancashire points to one source of mental degeneration among that class. Dr. Fergusson of Bolton, gave important evidence, not long ago, which indicated the main cause of their debility and stunted development, whether or not they are worse now than they were. He does not consider that factory labour in itself operates prejudicially, and reports the mills to be more healthy to work in now than they were in years past. The prime cause producing the bad physical condition of the factory population is, in his opinion, the intemperate habits of the factory workers. By free indulgence in stimulants and in smoking, the parents debilitate their own consti-

tutions, and transmit feeble ones to their children. Instead of rearing them on milk after they are weaned, they give them tea or coffee in a morning, and in too many instances they feed them upon tea three times a day. In short, they get very little milk.

Mr. Redgrave, the Senior Inspector of Factories, does not consider that this miserable state of things has increased—we hope not—but he admits that more women are employed in the mills than formerly, and that this is most disastrous to the training of children. Some curious figures have been published, showing the weight of children at various years of age in the factory and agricultural districts, the comparison being greatly in favour of the latter.

Another cause of deterioration mentioned is that at least one half of the boys in the mills from twelve to twenty years of age either smoke or chew tobacco, or do both; a habit most prejudicial to the healthy development of the nervous system. It was recently observed by Mr. Mundella that the lad who began at eight years of age in a mine without education, and who was associated with men whose whole ambition was a gallon of beer and a bull dog, was not likely to grow up to be a Christian and a gentleman. We may add he would be very likely to end his days either in a prison or in a pauper asylum. Dr. Clouston says, in a recent Report

of the Royal Edinburgh Asylum, that "such coal and iron mining counties as Durham and Glamorgan produce, in twice the proportion we do, the most marked and fatal of all the brain diseases caused by excesses." It may be stated that the relation between crime and insanity, especially weak mindedness, is one of the most intimate character, both in regard to the people who commit criminal acts and their descendants. An examination of the mental condition of convicts, and of their physiognomy and cerebral development, has long convinced me that a large number of this class are mentally deficient; sometimes from birth; at other times their mental development is arrested by their wretched bringing up. From the Reports of the English convict prisons generally, it appears that one in every twenty-five of the males is of weak mind, insane or epileptic, without including those sufficiently insane to be removed to an asylum. The resident surgeon to the general prison of Scotland at Perth (Mr. Thompson) gives a proportion of 12 per cent, founded upon a prison population of 6,000.

CHAPTER VI.

INSANITY CHIEFLY IN RELATION TO THE HIGHER CLASSES.

HAVING referred to the bearing of the habits of one large portion of the population upon the manufacture of insanity, I pass on to the consideration of the relation between higher grades of modern society and mental disorder. It has been observed in institutions into which private and pauper patients are admitted, that the moral or psychical causes of lunacy are more frequently the occasion of the attack with the former than the latter class. This is not always accounted for—as might have been expected—by there having been less drink-produced insanity among the well-to-do patients; for in the Royal Edinburgh Asylum, where this disparity strongly comes out, there is even a higher percentage of insanity from this cause among the private than the pauper lunatics. The history of the daily mode of life of many members of the Stock Exchange would reveal, in the matter of diet, an

amount of alcoholic imbibition in the form of morning "nips," wine at luncheon, and at dinner, difficult to realise by many of less porous constitutions, and easily explaining the disastrous results which in many instances follow, sooner or later, as respects disturbances of the nervous system, in one form or other. In fact, by the time dinner is due, the stomach is in despair, and its owner finds it necessary to goad a lost appetite by strong pickles and spirits, ending with black coffee and some liqueur. When either dyspepsia or over business work is set down as the cause of the insanity of such individuals, it should be considered what influence the amount of alcohol imbibed has exerted upon the final catastrophe as well as the assigned cause. Whatever may be the relative amount of insanity produced among the affluent and the poor, there can be no doubt, that certain mental causes of lunacy, as over-study and business worry, produce more insanity among the upper than the lower classes. I have examined the statistics of six asylums in England for private patients only, and found proof of the influence of these causes. At one such institution, Ticehurst, Sussex, I find, from statistics kindly furnished me by Dr. Newington, that out of 266 admissions, 29 were referred to over-study, and 18 to over business work. Only 28 were referred to intemperance. Allow-

ing a liberal margin for the tendency of friends to refer the disease to the former rather than the latter causation, the figures remain striking, as pointing to the influence of so-called over-work. I say "so-called" because there is an apparent and fictitious as well as a real over-work. Both, however, may terminate in nervous disorder. Over-work is often confounded with the opposite condition—want of occupation. Civilisation and mental strain are regarded by many as identical, and in consequence much confusion is caused in the discussion of the present question. It is forgotten that an idle life, leading to hysteria and to actual insanity, is much more likely to be the product of civilisation than of savagery or barbarism. This is quite consistent with the other truth, that without civilisation we do not see evolved a certain high pressure, also injurious to mental health. A London physician, Dr. Wilks, when speaking of a common class of cases, young women without either useful occupation or amusements, in whom the moral nature becomes perverted, in addition to the derangement of the bodily health, observes that the mother's sympathies too often only foster her daughter's morbid proclivities, by insisting on her delicacy and the necessity of various artificial methods for her restoration. It is obvious that such a case as this is the very child of a highly-

organised society, that is, of a high state of civilisation, and yet that such a young lady is not the victim of high pressure or mental strain in her own person, although it is certainly possible that she may inherit a susceptible brain from an over-worked parent. However, the remedy is work, not rest; occupation, not idleness. We certainly do not want to make her more refined or artificial, but more natural, and to occupy herself with some really useful work. A luxurious idle life is her curse. That insanity itself, as well as mere hysteria, is developed by such a mode of existence, we fully believe. The mind, although not uneducated, deteriorates for want of either healthy intellectual excitement, the occupation of business, or the necessary duties of a family. Life must have an aim, although to achieve it there ought not to be prolonged worry.

In the same way there is the lady instanced who eats no breakfast, takes a glass of sherry at eleven o'clock, and drinks tea all the afternoon, and who, "when night arrives, has been ready to engage in any performance to which she may have been invited." Clearly she is the product of a highly artificial mode of life, found in the midst of modern civilisation. She is certainly not suffering from mental strain; at the same time she is the outcome of the progress from

barbarism and the hardy forms of early national life to our present complex social condition. I have particularly inquired into cases coming under my own observation in regard to the alleged influence of over-work, and have found it a most difficult thing to distinguish between it and other maleficent agents which, on close observation, were often found to be associated with it. I do not now refer to the circumstances which almost always attach themselves to mental fatigue, as sleeplessness, but to those which have no necessary relation to it, as vice. Here I have felt bound to attribute the attack to both causes, certainly as much to the latter as the former. In some cases, on the other hand, I could not doubt that long-continued severe mental labour was the efficient cause of derangement. In a large proportion of other cases, I satisfied myself that over-work meant not only mental strain, but the anxiety and harass which arose out of the work in which a student or literary man was engaged. The over-work connected with business, also largely associated with anxiety, proved a very tangible factor of insanity. Indeed, it is always sure to be a more tangible factor of mental disease than over-work from study, because of the much greater liability to its invasion during the business period of brain life, than the study period. At Bethlem Hospital,

Dr. Savage finds that there are many cases in which over-work causes a break down, "especially if associated with worry and money troubles." Among the women, the cases are few in number. In one, where there was probably hereditary tendency, an examination, followed in two days by an attack of insanity, may be regarded as the exciting cause. Monotonous work long continued would seem to exert an unfavourable influence on the mind. Letter-sorting, short-hand writing, and continuous railway travelling are instanced. If diversified, hard work is much less likely to prove injurious. During a year and a half, twenty men and eight women were admitted whose attacks were attributed to over-work. The employments of architect, surveyor, accountant, schoolmaster, policeman, and bootmaker were here represented. Seven were clerks, two of whom were law-writers; two were students, one being "an Oxford man who had exhausted himself in getting a double first, and the other a medical student preparing for his 'second College.'" Of the women, five were teachers, one a school-girl, and two dressmakers. Three of the teachers were in elementary schools, one a governess and the other a teacher of music and languages. If over-work alone did not, strictly speaking, cause the mental break-down, still the concomitants must be blamed for these melancholy results.

A late medical officer to Rugby School (Dr. Farquharson), in defending that institution from a charge of injury in the direction of which we now speak, considers that instances of mental strain are more common at the Universities, "for not only are the young men at a more sensitive period of life, but they naturally feel that to many of them this is the great opportunity—the great crisis of their existence—and that their success or failure will now effectually make or mar their career. Here the element of anxiety comes into play, sleep is disturbed, exercise neglected, digestion suffers, and the inevitable result follows of total collapse, from which recovery is slow and perhaps never complete."—(*Lancet*, Jan. 1, 1876.) He thinks he has seen an increase of headaches and nervous complaints among poor children since compulsory attendance at Board Schools was adopted, and records a warning against too suddenly forcing the minds of wretchedly feeble, ill-fed and ill-housed children, and against attempts to make bricks too rapidly out of the straw which is placed in our hands.

The psychological mischief done by excessive cramming both in some schools and at home is sufficiently serious to show that the reckless course pursued in many instances ought to be loudly protested against. As I write, four cases come to my knowledge of girls seriously injured by this folly

and unintentional wickedness. In one, the brain is utterly unable to bear the burden put upon it, and the pupil is removed from school in a highly excitable state; in another, epileptic fits have followed the host of subjects pressed upon the scholar; in a third, the symptoms of brain fog have become so obvious that the amount of schooling has been greatly reduced; and in a fourth, fits have been induced and complete prostration of brain has followed. These cases are merely illustrations of a class, coming to hand in one day, familiar to most physicians. The enormous number of subjects which are forced into the curriculum of some schools and are required by some professional examinations, confuse and distract the mind, and by lowering its healthy tone often unfit it for the world. While insanity may not directly result from this stuffing, and very likely will not, exciting causes of mental disorder occurring in later life may upset a brain which, had it been subjected to more moderate pressure, would have escaped unscathed. Training in its highest sense is forgotten in the multiplicity of subjects, originality is stunted and individual thirst of knowledge overlaid by a crowd of novel theories based upon yet unproved statements. Mr. Brudenell Carter, in his *Influence of Education and Training in Preventing Diseases of the Nervous System*, speaks of a large public school

in London, from which boys of ten to twelve years of age carry home tasks which would occupy them till near midnight, and of which the rules and laws of study are so arranged as to preclude the possibility of sufficient recreation. The teacher in a High School says that the host of subjects in which parents insist on instruction being given to their children is simply preposterous, and disastrous alike to health and to real steady progress in necessary branches of knowledge. The other day I met an examiner in the street with a roll of papers consisting of answers to questions. He deplored the fashion of the day; the number of subjects crammed within a few years of growing life; the character of the questions which were frequently asked; and the requiring a student to master, at the peril of being rejected, scientific theories and crude speculations which they would have to unlearn in a year or two. He sincerely pitied the unfortunate students. During the last year or two the public have been startled by the suicides which have occurred on the part of young men preparing for examination at the University of London; and the press has spoken out strongly on the subject. Notwithstanding this, the authorities appear to be disposed to increase instead of diminish the stringency of some of the examinations. The *Lancet* has recently protested against this course in regard to

the preliminary scientific M.B. of the London University, and points out that the average of candidates who fail at this examination is already about forty per cent. and that these include many of the best students. This further raising of the standard will, it is maintained, make a serious addition to the labours of the industrious student who desires the M.D. degree. Whether this particular instance is or is not a fair example, I must say, judging from others, that it seems to be thought that the cubic capacity of the British skull undergoes an extraordinary increase every few years, and that therefore, for our young students, more subjects must be added to fill up the additional space.

The master of a private school informs me that he has proof of the ill effects of over-work in the fact of boys being withdrawn from the keen competition of a public school career, which was proving injurious to their health, and sent to him, that they might, in the less ambitious atmosphere of a private school, pick up health and strength again. He refers to instances of boys who had been crammed and much pressed in order that they might enter a certain form or gain a desired exhibition, having reached the goal successfully, and then stagnated. He says that the too extensive curriculum now demanded ends in the impossibility of doing the work thoroughly and

well. You must either force unduly or not advance as you would wish to do; the former does injury, and the latter causes dissatisfaction.

Mental strain in modern life is not only in some cases a cause of insanity, but it very frequently induces general exhaustion, or disease of the heart or some other organ than the brain. If, therefore, lunacy statistics do not supply us with the figures which would enable us to point to the occurrence of insanity as the result of undue intellectual work on so large a scale as might be expected, there can be no doubt the penalty is often paid in other forms. The number of subjects in which proficiency is expected is a point on which reform is urgently needed.

Too many hours daily study and the knowledge of an approaching examination when the system is developing and requiring an abundance of good air and exercise, easily accounts for pale and worn looks, frequent headaches, disturbed sleep, night-mare, and nervous fears. When the career of such students does not end in graduating in a lunatic asylum, they lose for years, possibly always, the elasticity and buoyancy of spirits essential to robust mental health. A strong constitution may thus be sacrificed to supposed educational necessities. Short sight will in many instances be the outward symbol of the mischief done to the inner man. The exaggerated

development of one portion of the system at the expense of another is the natural result.

A young lady at school, herself gifted with remarkable mental endowments, has thus feelingly depicted the condition of the pupils in expectation of an examination :—

“ One has a headache, one a cold,
One has her neck in flannel rolled ;
Ask the complaint, and you are told,
Next week’s examination.

“ One frets, and scolds, and laughs, and cries,
Another hopes, despairs, and sighs ;
Ask but the cause, and each replies,
Next week’s examination.

“ One bans her books, then grasps them tight,
And studies morning, noon, and night,
As though she took some strange delight
In these examinations.

“ The books are marked, defaced, and thumbed,
The brain with midnight tasks benumbed,
Still all in that account is summed,
Next’s week’s examination.”

I should be greatly misunderstood if I were supposed to undervalue the good which has been done in increasing the stringency of medical and other examinations far beyond what they were some years ago, and thus raising the tone and status of professional men ; all I object to is the singular delusion already referred to about the annual rate of cerebral growth in youth. It is

the present tendency to the abuse of competitive examinations which I deplore. Were the excellent recommendation of the Committee appointed by the Admiralty in 1869 to report on the education of cadets, to the effect that it is desirable to limit the number of voluntary subjects which each candidate may select, in order to prevent superficial and discursive study, and to encourage concentration of the mental efforts on so many subjects only as may be fairly mastered—were, I say, this principle extended and thoroughly carried out into practice by those who conduct all pass examinations, the influence would be excellent upon the present and future generation of students, and we should be less likely to hear of the suicides to which reference has been made.

It may be asked, Are literary men frequently subject to mental disorder? Does their history confirm the idea that mental pursuits carried to excess induce insanity? I reply that a considerable number will be found to be more or less insane—sufficient to justify the well-known lines of Dryden (after Seneca) about great wits and madness. At the same time, mental strain is in many instances the apparent, but not the real or only cause.

D'Israeli has a chapter in his *Calamities of Authors* bearing the title "Literary Disappoint-

ments disordering the Intellect," in which he says, "This awful calamity may be traced in the fate of Leland and Collins; the one exhausted the finer faculties of his mind in the grandest views, and sank under gigantic tasks; the other enthusiast sacrificed his reason and his happiness to his imagination." The account given of Leland by this author indicates the very mixed origin of his insanity, and shows that whatever may have been due to strain of mind caused by the "gigantic tasks" he undertook or achieved, he suffered mainly from emotional causes accompanied by loss of sleep. The death of his patron Henry VIII. evidently depressed him. Thenceforth, "he appears to have felt the staff which he had used to turn at pleasure for his stay, break in his hands." D'Israeli observes, "The Papists declared he went mad because he had embraced the new religion; his malicious rival, Polydore Vergil, because he had promised what he could not perform; duller prosaists, because his poetical turn had made him conceited. The grief and melancholy of a fine genius," he adds, "and perhaps an irregular pension, his enemies have not noticed." D'Israeli makes some further remarks on Leland's case, which are very interesting, but I will only quote the following paragraphs, "Leland, like the melancholic, withdrew entirely into the world of his own ideas; his imagination delighting in

reveries, while his industry was exhausting itself in labour. . . . There is a poignant delight in study, often subversive of human happiness. Men of genius from their ideal state drop into the cold formalities of society to encounter its evils, its disappointments, its neglect, and perhaps its persecutions; when such minds discover the world will only become a friend on its own terms, then the cup of their wrath overflows; the learned grow morose and the witty sarcastic; but more indelible emotions in a highly excited imagination often produce those delusions which Darwin calls hallucinations, and which sometimes terminate in mania. The haughtiness, the melancholy, and the aspiring genius of Leland were tending to a disordered intellect. Incipient insanity is a mote floating in the understanding, escaping all observation, when the mind is capable of observing itself, but seems a constituent part of the mind itself when that is completely covered with its cloud. Leland did not reach even the maturity of life, the period at which his stupendous works were to be executed. He was seized by frenzy." Such is D'Israeli's poetical description of the rationale of Leland's madness. We should in simple prose trace it to overwork, insufficient sleep, and disappointment arising out of the loss of his Royal patron.

Hence it will be seen that when we seek to

trace the causes of the overthrow of reason in literary men, it is often difficult to put the finger on one rather than another, out of the several injurious influences which we discover in reading their biographies, although overmental work must receive a very considerable share of blame.

Take, again, the case of Collins, to whom D'Israeli also refers. He attributes his insanity to disappointment. "The poetical disappointments of Collins were secretly preying on his spirit, and repressing his firmest exertions. . . . None but a poet can conceive, for none but a poet can experience, the secret wounds inflicted on a mind of romantic fancy and tenderness of emotion, which has staked its happiness on its imagination; for such neglect is felt as ordinary men would feel the sensation of being let down into a sepulchre and buried alive. . . . Collins's was a life of want, never chequered by hope, that was striving to elude its own observation by hurrying into some temporary dissipation. But the hours of melancholy and solitude were sure to return; these were marked on the dial of his life, and when they struck, the gay and lively Collins, like one of his own enchanted beings, as surely relapsed into his natural shape. To the perpetual recollection of his poetical disappointments are we to attribute this unsettled

state of his mind, and the perplexity of his studies."

I may add that Dr. Johnson seems to attribute his attack of insanity to the death of an uncle who left him a legacy. He had now no occasion to study to live, but only to live to study, and he appears to have drunk too freely. "His health continually declined, and he became more and more burdensome to himself."

Langhorne, himself a poet, puts the blame on imagination or fancy. Indulging in this, he fell a prey to its bewitching and then destructive influence. His lines run thus :—

"Sweet bard, beloved by every muse in vain !
With powers whose fineness wrought their own decay ;
Ah ! wherefore thoughtless did'st thou yield the rein
To fancy's will, and chase the meteor ray ?
Ah ! why forget thy own Hyblæan strain,
Peace rules the breast where Reason rules the day."

Lastly, there are some who would refer the insanity of Collins solely to an undue amount of literary work.

Of these reasons I think that, in his case, the least forcible is the last mentioned.

There is no sufficient evidence of great intellectual strain. The chagrin and mortification he experienced at the reception accorded by the public to his poems—productions which D'Israeli characterises as immortal—may well have been

an exciting cause of his malady, and this was doubtless aggravated by his having no occupation to divert his mind from his disappointment. There was however in all probability a predisposition to nervous disorder. There is indeed one incident related of his youth, which, though it may seem trivial, indicates a peculiarly susceptible mind. When a boy at Winchester, another scholar, W. Smith, noticed that he was very much depressed in spirits. On being asked the reason, he with some hesitation admitted that he had had a dream. His companions laughed at him, but insisted on hearing the particulars of the dream. He replied that he thought he was walking in the fields where there was a lofty tree ; that he climbed it, and when he had nearly reached the top, a great branch failed him and let him fall to the ground. More laughter followed this narration, and they asked him how such a common schoolboy accident could have such an effect upon him ; besides he had not been hurt. The reply of the future poet was that the tree was *the tree of poetry*.

About fourteen years afterwards, Smith visited poor Collins when mentally affected and under restraint. Immediately he exclaimed, " Smith, do you remember my dream ? "

D'Israeli draws an affecting picture of the mad poet haunting the cloisters and aisles of Chichester

Cathedral by night, as well as by day. When the anthem was chanted he moaned and even shrieked, bewildered by the strains which poured from the choristers. "Their friend, their kinsman, and their poet was before them, an awful image of human misery and ruined genius." An inscription in the Cathedral records the fact.

Of Cowley and many others, poets and literary men who have lost their reason, I might also speak, but it would carry me quite beyond my present object. It is sufficient to say that in most it is easy to trace mixed causes of the attack—too close application, the consequence of poverty, disappointment, and oftentimes a constitutional waywardness and instability of mind.

I would here observe in regard to the condition born of the extreme opposite of the excessive speed and haste and hurry of which we complain as one great evil of the present day—I mean mental stagnation—that a distinction must be carefully drawn between different states of psychical inactivity; between three at least which present themselves to us—that of the person not deficient in school education, but so situated as to be limited to a very contracted circle of ideas, while freshness of thought is checked, and variety of intellectual food withheld; the unlettered boor without mental resource finding his only enjoyment in the ale-house; these two conditions being

favourable to imbecility and low forms of mental derangement ; while a third condition, that of the untaught savage, although it presents points of similarity in the direction of limited intellectual resource, is relieved in various ways from actual stagnation without being driven to take refuge in beer and gin.

Of mental stagnation among the poor I have already spoken ; the analogous condition among the well-to-do classes, not to be confounded with that of the young lady already described as seen in the London physician's consulting-room, deserves a passing observation. Excessive activity and excessive dullness may lead to the same dire result. Hence both conditions must be recognised as factors in the causation of mental disease. I have said that the indirect action of the latter is more powerful than its direct action ; but there are no doubt cases of insanity which arise from the directly injurious influence of intellectual inactivity. The intelligence is inert ; the range of ideas extremely limited ; the mind broods upon some trivial circumstance until it becomes exaggerated into a delusion ; the mind feeds upon itself, and is hyper-sensitive and suspicious, or it may become absorbed in some morbid religious notions which at last exert a paramount influence and induce religious depression or exaltation. From the immediate surroundings of the individual, whether

in connection with parental training or from ecclesiastical or theological influences, or perhaps a solitary condition of life, there may be a dangerously restricted area of psychical activity. Prejudices of various kinds hamper the free play of thought; the freshness of the man's nature is destroyed; its spring broken; its strength weakened; and it is, in fine, reduced to a state in which it becomes a prey to almost any assertion however monstrous, if placed before it with the solemn sanctions which, from education, habit, or predilection, it is accustomed to reverence. Fantastic scruples and religious delusions frequently spring up in this soil. Such persons have been saved from the evils of drunkenness and vice; they have also been sheltered from worry and excitement, yet, to the astonishment of many, they become the inmates of a lunatic asylum. They have in truth escaped the Scylla of dissipation or drink, only to be shipwrecked on the Charybdis of a dreary monotony of existence. On this barren rock not a very few doubtless perish, and if parents they transmit to a posterity deserving our sincerest pity, mediocre brains or irritably susceptible and unstable nerve tissue.

On the dangers arising from waves of religious excitement, it would be easy to dilate, but we shall content ourselves with remarking that if they have been exaggerated by some, they have been

improperly ignored or denied by others. They are real; and frightful is the responsibility of those who, by excited utterances and hideous caricatures of religion, upset the mental equilibrium of their auditors, whether men, women, or children.

One remarkable feature of modern life—Spiritualism—has been said to produce an alarming amount of insanity, especially in America. It has been recently stated by an English writer that nearly 10,000 persons have gone insane on the subject, and are confined in asylums in the United States; but careful inquiry, made in consequence, has happily disproved the statement, and we learn that the amount of insanity produced from this cause is almost insignificant—much less than that caused by religious excitement.

Looking broadly at the facts which force themselves upon our attention, we may say that a study of the relation between modern life and insanity, shows that it is of a many-sided and complex character; that the rich and the poor, from different causes, though certainly in one respect the same cause, labour under a large amount of *preventable* lunacy; that beer and gin, mal-nutrition, a dreary monotony of toil, muscular exhaustion, domestic distress, misery, and anxiety, account largely, not only for the number of the poor who become insane in adult life, but who from hereditary predisposition, are born weak-minded or

actually idiotic ; that among the middle classes, stress of business, excessive competition, failures, and also, in many cases, reckless and intemperate living, occasion the attack ; while in the upper classes, intemperance still works woe—and under this head must be comprised lady and gentlemen dipsomaniacs, who are not confined in asylums ; that while multiplicity of subjects of study in youth, and excessive brain-work in after life, exert a certain amount of injurious influence, under-work, luxurious habits, undisciplined wills, desultory life, produce a crop of nervous disorders, terminating not unfrequently in insanity. In a state of civilisation like ours it must also happen that many children of extremely feeble, mental, as well as bodily constitutions will be reared who otherwise would have died. These either prove to be imbeciles, or they grow up only to fall a prey to the upsetting influence of the cares and anxieties of the world. A considerable number of insane persons have never been really whole-minded people ; there has, it will be found on careful inquiry, been always something a little peculiar about them, and when their past life is interpreted by the attack which has rendered restraint necessary, it is seen that there had been a smouldering fire in the constitution for a lifetime, though now, for the first time, bursting forth into actual conflagration.

Lastly, modern society comprises a numerous class of persons, well-meaning, excitable, and morbidly sensitive. Some of these are always on the border-land between sanity and insanity, and their friends are sometimes tempted to wish that they would actually cross the line, and save them from constant harass. When they do, it is easier to make allowance for them and their vagaries.

Whatever uncertainty, then, may attach to some aspects of this inquiry, unquestionable conclusions have been drawn ; and if these only accord with results arrived at from other considerations, they are valuable as confirming them. Had there appeared to be among the poor and ignorant a striking immunity from attacks of insanity, a strong argument would have been afforded, and would probably have been employed, against the extension of education at the present day to the working classes. Nothing, however, in our facts or figures supports such an anti-progressive view ; and if the educated classes did not sin against their mental health in so many ways, they would doubtless compare more favourably than they do, in fact as well as in mere figures, with the uneducated poor. So again with regard to intemperance and all that it involves, in spite of the difficulty of discriminating between the many factors which often go to make up the sum total of causes of an attack, we have no doubt of the large influence

for mental evil exerted by drink—always admitting that where the constitution has no latent tendency to insanity, you may do almost what you like with it, in this or any other way, without causing this particular disease. A man will break down at his weak point, be it what it may.

Again, the lessons are taught of the importance, not of mere education, but a real training of the feelings ; the evil of mental stagnation, not simply *per se*, but from the amount of sensual degradation in one direction, and of gloomy fanaticism in the other, engendered, and the danger of dwelling too long and intently on agitating religious questions, especially when presented in narrow and exclusive forms which drive people either to despair or to a perilous exaltation of the feelings. To true religious reformers the physician best acquainted with the causation of mental disease will award his heartiest approval. Only as the high claims of duty, demanded from man by considerations of the dependence of his work in the world upon mental health, of what he owes to his fellowmen, and of what he owes to God, are fulfilled as well as acknowledged, will civilised man benefit by his civilisation, as regards the prevention of insanity. Unpreventable lunacy will still exist, but a great saving will be effected for British ratepayers when that which is preventable shall have been reduced to a minimum by the

widest extension of a thorough, but not oppressive and too early commenced education, by the practical application of the ascertained truths of physiological and medical science, and by the influence of a Christianity, deep in proportion to its breadth, which shall really lay hold of life and conduct and mould them in accordance with itself.

CHAPTER VII.

FACTS AND FIGURES IN REGARD TO THE INCREASE OF INSANITY.

EVERY year's official return of the numbers of the insane in England and Wales ought to render it more possible to form an opinion in regard to the growth of lunacy and its comparative extent at different periods. At any rate the area grows wider and wider. Taking therefore the last Report of the Lunacy Commissioners, let us review the figures which have accumulated, and endeavour to arrive at some general result.

The question which interests the majority of persons who look at these statistics is whether or not insanity is shown by them to have increased in recent years. Now the first error into which every one falls who is not accustomed to the sources of fallacy which beset such figures is, taking the actual number of lunatics reported to be under care at any given time as representing the liability of a people to insanity, whereas the only certain

proof of this liability is to be found in the number who become insane. In other words the existing lunacy at any period is no indication of the occurring lunacy. The same number of persons may have annually become deranged fifty years ago as in 1877, and yet if of the former a larger proportion were neglected and died, the existing number of lunatics would vary greatly in the two periods. This is what has actually happened. The insane succumbed in large numbers from neglect or cruelty half a century ago ; now they live on to a fair age, some of them to very advanced life. For instance, an old lady died recently in St. Luke's Hospital in her ninety-eighth year, who would no doubt, under the barbarous system of former days, have died many years earlier. When, attempting to escape from this fallacy, we seek to ascertain the number who became insane half a century ago, and how many become insane now, we are wholly unable to compare the two ; because, while our information] now is much more nearly exact, we are devoid of trustworthy facts in regard to the former period. A fair comparison is therefore impossible. In proportion as public attention has been drawn to the condition of the insane, have the numbers reported and registered augmented until they amount to the alarming figure, given in a previous chapter, namely 66,636. Taking the poor insane only, there were no more than 1,765

reported to Parliament in 1807. Twenty years later there were 9,000. Fifteen years afterwards there were 13,868, and in 1860 they were 33,000 in number. After the lapse of another ten years 48,433 were reported; while, lastly, there are at the present time 59,039. This would certainly be a very startling representation of the increase of pauper lunacy in seventy years without the explanation we have given. Returning to the number who *become* insane, we will take the figures since 1859 to show how many patients have been annually admitted into asylums for the insane in England and Wales, for although they cannot safely be taken as indicating exactly the numbers becoming each year insane, they are the nearest approximation available. These show that the number of admissions into asylums (see Appendix C) has risen from 4·7 to 5·9, or 1·2, in every 10,000 of the population, equal to an increase of 26 per cent.; or, to 100,000 persons living, there were 59 persons admitted in 1876 against 47 in 1859, which would be about the same if calculated on the population of twenty years of age and upwards—the period of liability to insanity. Of course if of these admissions a large number prove to be incurable cases, and if through good care, there is a low mortality in the asylums, the accumulation of cases will be very great. If, in short, the recoveries and deaths are less numerous than

the admissions, there must be accumulation. On the 1st of January, 1859, there were 23,001 patients under detention in asylums. Between this date and January 1st, 1877, 200,203 were admitted or transferred. There recovered 68,324, and there were discharged not recovered 48,792, while 61,773 died; leaving 44,300 patients remaining in asylums. This is an actual increase on 1859 of 93 per cent. ; or, taking the increase of the population into account, of 55 per cent. There can be no question, then, that the admissions have far exceeded the discharges, and that an enormous accumulation of lunatics has been the result. For the increase in admissions there are various reasons, apart from the real spread of insanity, into which it would, perhaps, be tedious to the reader to enter very fully; but it may be observed that in several respects the guardians of the poor have not the same inducements they formerly had for keeping pauper patients out of asylums, and therefore they send a large number to them, for whom, twenty years ago, they would have otherwise cared. Briefly summarised, the causes of the increase in and out of lunatic asylums are :—(1) The Act of 1845, obliging counties to build asylums. (2) The Act of 1853, ordering a quarterly return of pauper lunatics not in asylums. (3) The Act of 1862, making pauper lunatics chargeable upon the common fund of the union, instead of the

particular parish. (4) The Act of 1874, granting four shillings per head towards the maintenance of of paupers in asylums out of the Consolidated Fund. There is also, indeed, some comfort to be derived from the fact that the *rate* of increase of lunatics (wherever cared for) is a declining one. Thus, during the five years ending 1864 the average annual increase (allowing for the increase in the population) was at the rate of nearly 3 (2·97) in a hundred; during the next five years it was less than $2\frac{1}{2}$ (2·31) per cent.; in the succeeding quinquennium it was under 2 (1·92) per cent.; and since then it has been little more than 1 (1·17) per cent. Or taking two periods—1859-68 and 1868-77—the increase in the total number of lunatics (allowing for population) was in the former period 24·43 per cent., and in the latter period 16·83 per cent., showing a decline in the *increase* of 7·63 per cent., and a decline in the *rate* of increase of as much as 31 per cent. If, for the same two periods, those lunatics only are taken who are certified—that is to say (with slight exceptions) are in asylums and not in work-houses or boarded out—the increase was 30·58 per cent. during the first period, and 18·25 during the second, showing a decline in the *increase* of 12·33 per cent., and a decline in the *rate* of increase of no less than 40 per cent. (See more figures in Appendices A and B.)

There undoubtedly is, however, an increase, though it shows a declining rate; and if a man is losing so much money a year, it is not altogether reassuring to be told that the rate of loss is a declining one. As already stated, this increase has taken place mainly among the pauper patients, viz. 49 per cent. against 22 per cent. among the private ones. Obviously, this is likely to occur as regards lunatics placed in confinement, because insanity among the poor is notorious, while among the rich and educated it is concealed as much as possible; temporary attacks being treated at home, or among friends, or in lodgings, without certificates, and some permanent cases being sent abroad, when not treated in their own houses. On many grounds we must be careful not to be misled into supposing from mere figures that there is only a slight amount of insanity among the opulent and the brain-workers.

It has, indeed, been stated that the proportion of private patients to the population has not increased between 1859 and 1877; and the very natural observation has been based upon it, that the circumstances of modern high life do not produce insanity, and that whatever increase there may have been in the total amount of lunacy in this country, arises from the poorer classes, among whom high pressure, excessive mental strain, and the like, do not exert an influence.

But the number of private patients at the two periods in question, calculated on the population, does show a considerable rise, viz. from 1 in 3,953 to 1 in 3,231; in other words, had the ratio to population remained the same in 1877 as in 1859, there would have been 6,210 of this class, whereas there actually were 7,597, or 1,387 more than there ought to have been, had they increased only *pari passu* with the population. This is no inconsiderable amount, being equivalent to about 22 per cent., and it must not be forgotten that the explanations given of the increase of pauper lunatics possess no force here. Altogether apart from the question of increase, I may here state my belief that there are nearer 12,000 than 7,597 non-pauper lunatics at the present time in this country (see Appendix D).

The reader may be interested in knowing how the large number of insane enumerated are distributed. On the 1st of January 1877 by far the majority were in County and Borough Asylums, namely, 35,523; in Registered Hospitals, 2,731; 16,038 were in Workhouses, and 6,312 were outdoor paupers, while 4,722 were placed in Licensed Houses (that is to say, Private Asylums), 358 in Naval and Military Hospitals and the Royal India Asylum, and 494 in the State Criminal Asylum at Broadmoor; 458 were private single patients; making a total of 66,636, exclusive of

252 lunatics found insane by inquisition, and residing in charge of their committees.

In conclusion, it may be said that the increase of recognised insanity in this country during the last half century has been enormous; that the great mass of this is easily explained by the attention of the public and Parliament having been directed to the care and treatment of the insane; by the consequent provision of asylums; by the lower rate of mortality; and by the increased stringency of the Commissioners in regard to certifying patients.

Further, while the striking apparent increase which has taken place in the number of the insane is found to be among the working classes, there are manifest reasons why cases of insanity among them should have become more widely and correctly known than those among the higher classes; and why, therefore, there is actually a greater amount of insanity among the educated and wealthy than appears in the blue books.

Lastly, looking not at the accumulation of lunatics in asylums, but at the admissions, and making every possible allowance for their considerable rise beyond that of the population, it is impossible to deny that there is reason to fear some real increase of occurring insanity.

PART III.

*AUTO-PROPHYLAXIS, OR SELF-PREVENTION OF
INSANITY.*

CHAPTER VIII.

GENERAL TRUTHS.

PREVENTIVE medicine has been justly regarded as the highest department of the art of the physician; prophylaxis a higher aim than therapeutics.

It comprises two great divisions. There is, in relation to insanity, the prevention of the disease in others—an altruistic prophylaxis; and the self-prevention of the disorder, or auto-prophylaxis. The remarks hitherto made have mainly concerned the former, and have borne chiefly upon the duties of society to individuals. In the succeeding observations, I have in view, primarily, the means by which the individual may become aware of his own mental danger, and take prompt measures to remove it.

The subject which I propose to treat more fully is one which claims the attention and commands the interest of all, because insanity is one of the most dreaded of diseases, and no one knows

how soon he may fall a victim to it. It must be so when one in every three hundred of the population of this country is either insane or idiotic.

In how many of the biographies of distinguished men do we read of the horror with which they looked forward to this dread possibility, and how they prayed Heaven that they might be afflicted with any other malady rather than madness. In the old mythologies how often are the gods represented as causing some form of madness in those who had offended them. "When a divinity would bring ruin upon a man, he first deprives him of his mind," says Euripides,¹ or, as it has passed into a proverb in the Latin form, "*Quem Jupiter vult perdere dementat prius.*" Not indeed if I had, as Homer says, ten tongues and ten mouths, could I describe adequately the mental sufferings, the dire despair, the agony of fear, the terror of impending, though imaginary, evil, which many of the insane endure. I recently saw a clergyman who was suffering most acutely from mental agony, and seemed to give one, as his medical attendant remarked, some idea, however faint, of what the Saviour must have suffered in the garden of Gethsemane. It is wholly unnecessary, however, to fortify my position that

¹ Ὅταν δὲ δαίμων ἀνδρὶ πορσίνη κακὰ,
τὸν νοῦν ἐβλάψε πρῶτον.

it is of extremest importance to do all in our power to ward off attacks of insanity, by harrowing descriptions of madness. I may well assume that they are present with sufficient vividness in the minds of my readers, and that they are so alive to the danger—and the terrible character of that danger—that they would willingly be in possession of any knowledge which might help them to escape it.

The necessity of taking timely notice of slight but significant symptoms of mental aberration, although not assuming a dangerous form, not only for the sake of the individual, but for the protection of society, receives melancholy proof from time to time. Only to mention one instance, which occurred a short time ago in the United States. A lady had for some time been regarded as eccentric, but no steps were taken to place her under medical care. She travelled extensively at home and abroad. After a railroad ride of some hundreds of miles, she took a carriage at a station, directed that she should be driven to a leading physician of the town; and having arrived, quietly asked a little boy, a son of the doctor, if his father was at home. In response to her inquiry he came to the door, and was immediately shot down. Not satisfied with this homicide, she directed the coachman to drive to another physician's house, but he, feigning ignorance of the address, drove

her to an hotel, where she went to a room as if nothing had happened. It was discovered afterwards that this lady laboured under the delusion that the gentleman whom she shot had blown bad odours after her, all over the world, and that she could not get rid of them.¹

The question may be asked me at the outset, Have you anything more to advise than that which the moralist would tell us? If we follow the ghostly counsels of the preacher shall we not pursue the course best calculated to prevent this calamity falling upon us? To this question, which is a reasonable one, I will at once reply that, beneficial as it would be, as regards mental health, to follow the counsels of the moral or religious teacher, always assuming that he is judicious as well as earnest : in other words, highly important as is the influence of true religion upon the mental faculties, religious teaching fails to comprise the duties of men and women in relation to the care of their minds ; its expounder does not profess to understand the delicate mechanism of the brain, the laws upon which its healthy working is dependent, the signs that this mechanism is getting out of order, that a wheel is revolving too slowly or too quickly here, or that a screw is loose there ; and therefore cannot pretend to tell

¹ *Proceedings of the Association of Medical Superintendents of American Institutions for the Insane*, 1876, p. 140.

us how best and soonest to ward off attacks of mental derangement. I therefore think that the physician who makes the diseased workings of the mind his special study has something to say which the moralist cannot be expected to know; and, in truth, it is but too evident that a man may follow all the precepts of the religious teacher and yet fail to secure an immunity from madness. What the physician has to say is something more than to preach a homily on virtue. The doctrine of the German psychologist who promulgated the notion that insanity arises from sin in all cases, has happily passed into well-merited oblivion—the limbo of unpractical speculations which break down the moment they are confronted with the experience of every-day life.

The best of men may, and do, become a prey to this disease. The worst of men may escape. It is still true, however, that the former, in so far as they have kept the commandments of God, which the latter have broken, are less liable to insanity than they. Rightly understood, the fact cannot be employed as a plea for badness or a deterrent from goodness. The explanation is not far to seek, but though not far to seek, how many fail to find it, and marvel, as men have marvelled in all ages, that the good are not exempt from the ill to which others are exposed. Experience teaches us, then, that the most unexceptionable

men, from a moral and religious point of view, may have been guilty of the infraction of some laws of health, and thereby caused mental derangement; or that, if they have kept the physical as well as the moral law, they have laboured under the misfortune of an hereditary predisposition to insanity. The most evil men, on the other hand, may escape this particular malady because they have come into the world without this predisposition. In regard to men whom I have known, truly excellent, yet who have fallen into a state of profound religious melancholy—in which for years they remained in intense suffering, bemoaning their condition, and with the mind fully alive to all that was passing around them—I have heard the greatest surprise expressed that such a fate should have been permitted to befall them. The difficulty arises from a radically false conception of the mode of the divine government, and from not taking a sufficiently extensive survey of the history, past as well as present, of such a patient. If this broad view were taken, and it were possible to ascertain all his antecedents, it would be found that he was paying the penalty of a broken law—a law broken by himself or his progenitors, perhaps unconsciously, and, it may be, for want of such knowledge as it is the object of these chapters to convey, and induce the reader to carry out into practice.

Were it a part of my object to declaim against every evil act or guilty indulgence which may sap the foundations of the mental constitution, I should simply have to inveigh against sin and evil in general. But, as I have said, my object is rather, while thoroughly confirming all that the moralist can say in favour of virtue, to speak when he generally is silent. Had my intention been otherwise, I should have urged, as a means of avoiding one source of mental weakness, the supreme importance of moral purity in all forms, the progressive downward character of evil indulgence, the tendency, in accordance with well-recognised psychological laws, of small deviations from moral rectitude to become greater; the necessity of fortifying all those mental forces which would repel and prevent infractions of the moral law, calling into vigorous action, in another and healthy direction, the active powers of the mind, and substituting high for low, noble for base pursuits. I should have dwelt upon the duty of not yielding to the temptation of committing a wrong deed, if only in accordance with the mental fact so clearly pointed out by the metaphysician, Brown, that in yielding once to any vicious desire, a man loses much more than the virtue of a single moment; for while the desire, whatever it may be, is increased by indulgence, the mere remembrance that he once yielded to its

solicitation is almost like a licence to yield again. The second error he describes as seeming to save such a man from the pain of thinking that the temptation which he before suffered to vanquish his feeble virtue, was one which even that feeble virtue was capable of overcoming ; and his present weakness is to him, as it were, a sort of indistinct and secret justification of the past.

I say it would have been extremely easy to have enforced such moral and mental truths as these in their relation to the injury inflicted upon the mind ; but as it is clear that a virtuous life, the result of conviction, will prevent these particular evils, I pass them by with this brief reference and proceed to points more directly falling within the scope of this work.

The first and cardinal principle to hold from our point of view is that the brain is the organ of the mind, and therefore subject to the laws of physical life in general, and to those of cerebral life in particular. It lies at the basis of the prophylaxis or prevention of insanity. The tritest truths are often those which are most forgotten and neglected. No one will dispute at the present day that the brain is the organ of the mind, that it is the material instrument through which its functions are performed ; but see what follows. It is here that people fail to perceive clearly, or to act in accordance with what they do perceive.

Therefore must it again and again be dinned into their ears, that their thoughts, their perceptions, their reasonings, their feelings, their way of judging of truth itself, cannot be properly conducted unless this organ is supplied with healthy blood, unless it has a sufficient amount allowed it to supply it with nutritive materials and replace those which it has consumed in its operations; the *débris* left after the cells have been used up being thrown off. Nourishment, assimilation, discharge of effete matter; these are as necessary for the mind-organ as for any of the other viscera of the human body. This marvellously constituted brain—men may ignore it—despise it—degrade it—defile it—but they do it at their peril; and let them remember that whether the result is, or is not, actual madness, they will pay the penalty sooner or later in some form or other; they will not be permitted to escape the consequence of the infraction of the laws on which its integrity hangs.

I am satisfied that much benefit would flow from a more frequent and more definite presentation of the laws of mental action; a clear statement of the conditions which favour the mind's healthy working on the one hand, and lead to its unhealthy working on the other; basing in short even the most homely truths and the most familiar facts upon a physiological foundation.

Having ascertained the physiological laws of being in relation to psychical health, to obey them is a plain duty; to act as understanding that for the healthy operations of mind the brain cells must be kept in good order; that their nutrition must be well sustained; that they must not be stuffed with an indigestible or overwhelming amount of food any more than they must be starved, lest—crushed beneath the burden of its own acquirements—the mind, overweighted, is no longer able to enjoy them.

Seeing, in short, that our mental powers depend, in this life, upon the health and integrity of a vast number of brain cells; that this health and integrity require suitable nutrition both as to quantity and quality, and a free supply of oxygen, it must be that the mind in its contact with the world will frequently suffer; indeed the wonder is, not that so many become insane in the midst of so great a neglect of the laws of nature, so much vice, lamentable want of mental cultivation on the one hand, and excessive unregulated mental work on the other, but that so many escape.

Let not him who rejoices in his almost unlimited powers of mental work, and boasts of his capacity to dispense with the usually allotted period of rest, assume that his powers are superior to the laws of mind in its relation to and dependence upon brain, or suppose that his fancy

and imagination, unconsciously exercised as they are, can construct for themselves an impregnable fortress, raised above the clouds of earth, independent in its isolation, yet on a secure foundation, while defiant of the rational thrall to which it has been made subject by a stronger and higher hand than man's.

Easily could I trace and unfold before the reader the course and history of a mind so falling from that condition of sanity which each hopes that he enjoys, into a state of hopeless fatuity. The events pass before me in sad procession and float across my memory. I see the light gradually but surely melt into darkness. Let every one ask himself whether he is endangering his mental health by such a forgetfulness of psychical laws, or from want of a useful object in life, by exclusive grooves of thought, or by yielding too much to his natural temperament when it ought to be repressed instead of being fostered.

Man must be viewed, then, his nature must be treated, as compounded of nerve, vessels, life, mind. He must not be isolated in regard to any one function. He must be studied as a symmetrical whole. One design, one ultimate law, unites all the parts of which he is composed. Their connection and interdependence must be clearly seen, understood, and, most important of all, acted upon. Mere physiological and psychological

knowledge will not ensure this. To know is not necessarily to obey.

Life has its trial epochs ; and at these crises of a man's course, it specially behoves him who has a predisposition to insanity to guard against the exciting causes of the disease, and to shield the system from the peril of its attack.

Youth is not prone to insanity, but the seeds may be then sown only too profusely and effectively. Habits may be formed, a bent be given to the disposition, which may ultimately prove most injurious to the natural and healthy evolution of the mental faculties, and may arrest development. Manhood brings its special temptations and difficulties, and at no time is self-control so essential ; the ill-balanced and weakly-principled fall victims in the combat between passion and principle ; and among the various deplorable issues, an attack of maniacal excitement is one. The causal-nexus between dissipation and the most deadly form of insanity is unquestionable. In woman, the new relations which spring up with advancing teens, and the development of the emotions, entail an impressionability to hysterical attacks and actual derangement of the mental powers, which cannot be disregarded with impunity. Marriage presents certain risks, but maternity far greater ; and much might well be said, were this the place, by way of advice and in deprecation of

unwise modes of living calculated to foster nervous excitement.

Then, in later life, the great step in advance which, from its importance has been termed the grand climacteric, possesses for the woman of about 50, and the man of about 60, critical changes in the constitution in relation to the exciting causes of insanity, which it were wise to regard as danger-signals in the journey through life. If the Pythagoreans attached an absurd mystic value to the figure seven, and its multiples, the importance must be granted, as regards mental danger, of the ages of 14, 21, 28 (especially the decennium between 25 and 35,) 49, 63—and indeed 56, for men frequently break down mentally about then, as well as at the later age. It is generally true of the climacteric period, that if safely passed, a new and firm psychical constitution supervenes. In the subsequent falling off in mental force in the period aptly termed by the French *caducité*, there is occasion for great care not to accelerate the degeneration and atrophy of the brain by under-work, no less than by over-work : never forgetting that “want of occupation is not rest.” To this epoch Bacon’s advice may be applied, “To be free minded and cheerfully disposed at heures of meate, and of sleepe, and of exercise, is the best precept of long lasting.” It is as true of the

preservation of the mental faculties as of the bodily.

In reply to the advice tendered in this chapter it may be asked if we have much or any power to arrest the tendency to insanity when the warnings of danger arise? I am sorry I cannot altogether agree with the author of a little book published some years ago (Mr. Barlow), entitled *Man's Power over Himself to Prevent or Control Insanity*, in what he advances; as when he asserts, *without any qualification*, that "man has in the resources of his own nature the antagonistic power which, if properly used, can set at nought the evils, ay, and the so-called irresistible propensities too, of the bodily organism." I would not say a word to the injury of the position that man may exert an antagonistic power up to a certain point, and that he is bound to do so. It is my object to induce those who read these pages not only to avoid the causes of insanity, but also, when it threatens them, to use the antagonistic power of the will and strive to control the irregular action of the mind; but I could not assert with truth that the evils of the bodily organization can be "set at nought" by the will.

It may safely be asserted, however, that there is no fact better established than that we can exert our will over our mental processes to a very large

extent. I would insist in the strongest possible manner upon the necessity of self-rule or control. If I believed that we are conscious automata, I should have no heart to ask a man to do this. But I believe in no instance is it more important that men should recognise their own will, and the obligation of employing it to control those really automatic tendencies of the mind which often are strikingly characteristic of insanity. That which John Stuart Mill said of character is true, in degree, of tendencies to mental derangement—"What is really inspiring and ennobling in the doctrine of free will, is the conviction that we have real power over the formation of our own character." The exercise of volition will always increase its force, and every time persons forcibly control automatic or irregular impulses or acts, they will find it easier to repress them in future. On the other hand, if they yield to them, the will becomes weaker and weaker, and they stand a very good chance of actually becoming "conscious automata." It is, in truth, a fact as well established as that on which I have just insisted, that not only does a process of thought or sudden impulse arise, unprompted by the will, but that in some instances these wholly refuse to be checked by volition; and, in short, men may and do bitterly deplore the thoughts, the ideas, the suggestions and the emotions which arise in the mind. These

unbidden guests, the harpies which may haunt our richest mental banquets, are often among the earliest symptoms of a disordered brain.

On the importance of directing and regulating the attention to healthy subjects outside the morbid circle of ideas, it is impossible to speak too strongly. It is obvious that we are only speaking of one mode of willing, and no doubt, in the first stage of threatened insanity, the loss of the power of attention is the most marked and distressing feature of mental change.

I have known men painfully aware of the danger by which they were beset, and resolutely—and in the end successfully—repel the threatening assault, both by directly opposing its early indications—defying it to the very last by their resolute will—and by indirectly escaping it through diverting the attention into other channels. And of such a man, one who has nobly struggled till the end of his life against his tendencies, and who moreover may have resolved not to transmit them to posterity, I think it is not too much to declare that among those who merit our respect and admiration for moral conduct, few leave behind them a more instructive and honourable example. He may have been assailed by as formidable a phalanx of moral and intellectual foes as ever general by allied armies in the field, and yet from that terrible assault he has, after a fearful struggle,

emerged triumphantly. He has at last slept with his fathers in peace, after so many conflicts; in sanity after so much risk of madness.

The case of an insane gentleman came to my knowledge, many years ago, which illustrates the power, though only the limited power, of self-control of which I speak; one which, if exercised when mental disease is fully developed, can *à fortiori* be exercised when the disease is only in an incipient stage. This gentleman, a man of parts, a poet, and a friend of Southey's, was full of delusions. He believed himself doomed to endless torment. He was the son of perdition, the scapegoat, the man of sin, spoken of in the Bible. Speaking of outward nature, he said, "Everything has changed its aspect. Objects around me are no longer seen in perspective, but appear flat, and raised one above another, like a Chinese drawing. Spring will no more return." When told that spring would return, and a hope expressed that it would remove his apprehensions, "They are not apprehensions," he replied with earnestness, "they are *convictions*; but if spring does return and resume its usual appearance (I don't mean a few crocuses and snowdrops), I will acknowledge myself in error. It may seem strange," he said to the gentleman he was addressing, "to ask you to visit me again, but I shall be glad to see you; for even the shadows, the resemblances of those we

know, are pleasant amongst strangers." The point of interest, however, to which I wish to direct attention is this, that at the very time he held these delusions and gave full expression to them to his wife and to some others, he visited Southey, and during the visit acted quite sanely, and never alluded to his delusions. Southey indeed congratulated the patient's wife on his being so well, adding he never knew him reason more clearly. When she repeated this remark to her husband, he exclaimed, "Why, you know, I could not think of showing my weakness before *him*," thus proving considerable power of restraint in, at least, the expression of his delusions.

CHAPTER IX.

WARNINGS OF DANGER.

WARNINGS of danger are very frequently, if not always, associated with the inability to sleep. The foe is insidious, and, true to his character, loves to assail us in the dark. He comes upon us in the night. He seizes upon us at our weakest hour, when our vitality is low, our power of resistance feeblest, our ability to judge rightly or discriminate accurately, less than at any other time—the period truly, when things are not what they seem, when all the events of life—of yesterday and of the morrow—present themselves in a weird form, and when tormenting suggestions—

“Squat like a toad, close at the ear of Eve.”

These in broad daylight would be altogether powerless to harass us; but in the witching hour of night, haunt us like spectres, perplex us, worry us, scare us, render us restless and utterly unable

to regain our broken sleep. The sufferer is importuned by most unwelcome thoughts and even odious suggestions, which no previous experience explains, and which possibly no effort of the will removes. Or he dreams dreadful dreams. These sometimes run upon dying, the grave, and coffins, and the corruption of the body. Such symptoms in medical psychology are like the delicate clouds in the sky in meteorology; they indicate to the practised observer the coming storm.

It is at this point that it is all important to realise that something is going wrong in the mental machinery, that there is a cause for all this which must be discovered, and, if possible, removed; and that as sleep and mental action are functions of the same organ, the irregularity or loss of the former is a certain sign that the integrity of the latter is already in danger. Then, if unable to discover any special cause for sleeplessness, or, knowing it, a man removes it and still is no better, I cannot too strongly advise him to lose no time in consulting his physician and rigorously obeying his prescriptions. If he neglect this one symptom—sleeplessness—he is running a great risk of losing control over his mental operations and becoming unable to apply his mind to his duties, the facile descent to actual madness being the sequel. Those who are acquainted with the mechanism of sleep will readily

understand how easily it may be lost by not observing the conditions upon which its production depends. There is a constant contest being maintained between two great portions of our nervous system, the cerebrum on the one hand, and the sympathetic nerves on the other, which go to regulate the size of the vessels of the brain, and therefore their supply of blood. It is essential for the active operation of our mental powers, thoughts, consciousness, attention, and so forth, that the nervous influence which pervades and supplies the cerebrum shall be in full activity. This condition holds good when we are awake. But what happens when sleep overtakes us? The brain tissue has become fatigued, exhausted, and therefore temporarily powerless, and directly this happens, the sympathetic nerves which accompany the blood-vessels come into play, and, by contracting upon the contents of these vessels, diminish the vascular supply of the organ of consciousness and thereby induce temporary unconsciousness or sleep. Such is the natural oscillation which occurs between the full and diminished amount of blood in the brain, in our sleeping and waking states. Now this healthy action is more or less destroyed in morbid wakefulness or insomnia. The sympathetic nerves controlling the calibre of the arteries and the capillaries in the brain lose their grasp upon the vessels, and their powerful

antagonist—the grey matter of the brain—persists in keeping up its molecular activity ; an activity which may be of a productive description, leading for a time to brilliant results, but more often imperfect and intermittent ; and ending at last in vague, irregular, and indefinite mental action.

It might have been supposed, *à priori*, that hard and even excessive mental work would always be its own cure ; that the overtaxed brain, being exhausted, would cease to struggle with its competitor ; and that sleep would follow and restore the jaded energies of the brain just to the extent that is necessary.

Unfortunately, we know that this does not hold good. As I have said before, the brain is not only governed by general laws, but it has laws of its own which differ in some respects from those governing other tissues—for example, the muscular. The blacksmith's weary arm subsides to rest and does not crave for more work ; it gives very clear indications, in the way of pain, of the necessity of repose. But the brain, in many cases, gives no such definite information to the mental worker at his anvil ; once set in motion, it goes on and on, probably without causing distinct pain, and even solicits fresh work, a continuance of its operations in which it seems to glory. Like the charger in Job, the mind of the man of genius "mocketh at fear, and is not affrighted, neither

turneth it back from the sword ; the quiver rattleth against it, the glittering spear and the shield ; it swalloweth the ground with fierceness and rage, neither believeth it the sound of the trumpet. It saith among the trumpets, Ha, Ha ; and smelleth the battle afar off ; the thunder of the captains and the shouting." So it comes to pass that the action of the brain or mind goes on long after the time when it should have ceased in order to recruit itself, and even when its operation is suspended and the supply of blood and consequent nervous power are shut off, an irritability has been set up in the nerve tissue, and an intense tendency to come again into operation ; from which it happens that the power which the sympathetic nerves had obtained over the vessels can no longer be maintained, the struggle is given up, and the brain resumes its activity some hours before it has had time to obtain that rest which is necessary for a day's work.

It may be added that apart from any direct medical treatment which may be adopted, whether by opiates (which at this stage are often of great use) or otherwise, the sufferer from sleeplessness will derive help from avoiding all exciting head-work for some time before retiring to rest, substituting for it something soothing, as poetry or general conversation. Nor should the importance of mental hypnotics be altogether despised,

though only applicable in a very early stage; I mean the various devices which have been resorted to of coaxing sleep, such as going through the multiplication table, mentally watching a flock of sheep jump one by one over a gate, or the more elaborate plan of lying on the side, taking a deep inspiration, closing the mouth, and following in mind the expired air passing out in a stream from the nostrils. *Chacun à son gout.* But the writer has found no trick of this kind succeed so well as that of taking the head, arms, and legs as representing five, and adding them up, again and again, in the various proportions they admit of to make this number. The effort required is too slight to prevent sleep, and yet sufficient to divert the mind from the train of exciting thought which causes wakefulness.

Warnings of danger may appear not only in the form of sleeplessness, but of a dull aching of the head, a sense of the brain being too large for the skull, singing in the ears, and so forth.

With these physical symptoms will be associated an inability to do the same amount of mental work as before, and a powerlessness of even reading an ordinary book requiring the slightest continued attention, inaptitude for the duties of life, listlessness.

Within a very recent period I have known two cases which illustrate some of these remarks

and at the same time point a moral as to the injury caused by over-brain-work.

A youth aged nineteen, studying for a certain status at Cambridge under a tutor, was obliged to do a great deal of work in a short time. The first symptoms were inability to give sustained attention to his studies, and great listlessness. Then, after being in bed one night for about an hour, he woke up raving mad, and required three people to hold him. The pulse was feeble and there was no evidence of inflammation. The brain was utterly exhausted. The following night he woke up again maniacal, and so again on the following morning. Under medical treatment and a constant supply of nourishing food, he began to recover, but was feeble-minded and looked about him as if lost. Slowly his health was restored.

In the other case, a tutor in a school overworked his brain. He began at last to be listless, sleepless, powerless. He grew worse and worse till he became partially demented. He now walks with uncertain step, turns slowly round, and looks bewildered—in all probability a hopeless wreck.

“In the five years I have been here, it is beyond dispute,” a gentleman writes to me who is on the committee of an endowed school, “that three boys have died from over-study and another is hopelessly injured. I do not believe the damage

has ended there, but if a boy lives, it is difficult to measure the injury done, and hence some will dispute it."

Emotional warnings there are, also, which are of grave import, and ought to be regarded with suspicion by those to whom they occur. Among these may be enumerated slight depression of spirits, especially if this alternates with a sense of exaltation and buoyancy. If the world seems unreal, if the path of life seems gloomy, if the slightest circumstance brings tears into the eyes, these are incipient symptoms of irregular brain action which ought at once to be attended to. So ought irritability of temper, moroseness, unaccustomed irascibility, fratchiness in the naturally sweet and amiable, suspiciousness in an open and trusting nature; change of manner and feeling towards those previously loved without any real cause. The buoyancy of spirits to which I have referred is less likely to excite apprehension among friends than despondency; but it is most important to remember that exuberant spirits, mental exhilaration, loquacity, when unusual to the individual, are fully as serious indications as are the opposite states of mind. Here may be mentioned that peculiar flightiness of behaviour, that strangeness of manner and peculiarity of demeanour which are sufficiently well recognised as signs of "craziness," to render

it unnecessary to insist upon their importance, although it sometimes happens that they are present for long before it is possible to take decisive action in the way of treatment. Unfortunately when action is taken, mistakes in business have been made, or legal documents have been signed which involve serious consequences, family disputes have been occasioned, friendships have been broken, and a great deal of misery caused in various ways, all of which might have been prevented by arresting the symptoms by timely treatment, or failing this, arresting the patient himself and sending him to an asylum in an early stage of the disorder.

Then again, there are strange and unfounded fears about the future ; something dreadful is going to happen ; the frequent form this morbid apprehensiveness assumes, being a dread of bankruptcy, and approaching ruin. There arises also, in some, the baseless fancy that the man has himself injured another, or owes him money, or has entered into a compact with the evil one. An attempt to commit suicide often follows in such cases. Nothing can be more remarkable than the fact, notorious to the public through the newspapers, that there is rarely, if ever, a murder, the perpetrator of which is undiscovered, without one or more persons labouring under the delusion that they have committed the crime, and deliver-

ing themselves up to justice in consequence. Sudden and extraordinary scruples should also excite attention and concern, indicating as they frequently do, latent brain mischief, and a twist in the emotions or affections which—although seemingly leaning to virtue's side—may nevertheless be pure delusions, simulating conscientious duty, and leading the misguided fancy into courses of action which, if the brain-fog is ever dispelled by the sun of returning health, are remembered with bitter but unavailing regret.

Indecision of mind, when not the natural character of the individual, is another warning. A man cannot make up his mind on anything. He has two courses open before him in life, and has to decide which he will take. He is in an agony of doubt, because both courses present balancing advantages and disadvantages, which render him wholly unable to decide which preponderates. If one of the possible courses is to remain *in statu quô*, then the homely Yorkshire proverb "When in doubt, do nowt," is applicable; but where action must be taken in one of two or more directions, the only wise plan to pursue in such a mental dilemma, is to consult a trustworthy friend and resolutely abide by his decision. The further worry and anxiety of mind consequent on prolonged indecision, will injure the brain tissue much more, and therefore cause

more permanent injury to the individual than the possible loss sustained by making a mistake in deciding between so nearly equally balanced courses of action. I do not refer to moral questions. The old device of casting lots must have saved some weary and puzzled heads from continued conflict between the two halves of their brains.

Let him whose judgment is so bewildered by opposing forces and rival claims, and whose action is paralysed in consequence, promptly and resolutely determine upon one or other course either on his own or another's judgment, and exercising all his self-control stick to it without faltering or wavering. If not, he will only plunge deeper and deeper into the mire, which will render him more and more unable to move forward and employ the faculties he possesses to any purpose.

Scientific truths are often enunciated in the most forcible though simple language by unscientific people. In conversation recently with some ladies the discourse turned upon mental maladies, when one observed, "you see we are so differently constituted, what affects one person will not affect another. Thus things prey upon the mind of one individual which readily pass from the mind of another." In this remark was comprised the central truth contained in the doctrine of insane temperaments. They constitute, when properly

recognised, other and important warnings of the liability to an attack of insanity.

If it is disheartening to know that while some men are proof against the invasion of this calamity, whatever folly they may choose to commit, others have the seeds of insanity sown in their nervous system, only awaiting a favourable exciting cause to make them germinate, it is none the less but all the more important that we should know what are the circumstances, what the conditions, calculated to stir up the slumbering embers into flame. There can be no doubt that, given in two cases precisely the same predisposition to insanity, the disease might in one case be kindled by an unwise, or averted in the other case by a wise mode of life, based on the principles I have endeavoured to lay down. To this extent then, insanity is a preventable disease. Looking at the cases I have known, and regarding the causation of their attacks from this point of view—their preventability—I can see a large number who under more favourable circumstances and a brighter sky, under judicious mental training, under a calm and regular instead of an irritating life, or free from habits and associations of a certain kind, might have escaped the perils of their unfortunate mental heritage.

I have seen this predisposition lighted up by speculation and consequent pecuniary losses and

bankruptcy, by the misery of a homeless home, by a drunken wife, by the complete absorption of the affections in a child, and that child dying; by a course of excessive study accompanied by competition for honours; by evil habits; and by many circumstances, the avoidance of which would have left a fair chance of escape from an attack of insanity, had these individuals, conscious of the dangers into which they, with their proclivities, were running, shunned them.

Familiar, therefore, with the physiognomy of temperaments, the physician, accustomed to observe their relation to mental disorder, will not fail seriously to warn those who possess them, whether they betray signs of actually passing over the boundary line of sanity or not, to guard in an especial manner, against over-excitement in some instances, much study in others, over-strain in all. He will often readily recognise the die in which this or that person is cast, and detect the peculiar mark on the metal, which the unobservant or unskilled fail to notice. He sees a combination, a grouping of mental and physical characteristics which experience tells him are apt to be associated with certain tendencies, only awaiting a sufficiently exciting cause to develop them, be it the exclusive search after gain, the indulgence in drink, and other passions, or in the absence of rational and healthy occupation.

The character of each man's disease, whatever it be, is mainly determined by the latent proclivities under which he labours. The lungs of a person without any predisposition to phthisis may be subjected to almost any amount of exposure to cold without consumption being developed ; if any pulmonary effect is produced, it may be inflammation of the lungs, pleurisy, or only bronchitis ; and in the same way, although the well-recognised causes of insanity are present and indeed actively at work in a particular case, the disorder does not develop itself, because there is no decided tendency to it, but in its stead may arise epilepsy, paralysis, or simply exhaustion, or a general "break up" of the system.

It may be asked, How shall a man know that he has a predisposition to insanity ? Sometimes, indeed, it is not only dormant, but so latent or hidden that it is impossible to detect it. In many instances, however, outward signs or family history point in this direction. In the first place a man may fear it if he comes of an insane stock, or if his parents have suffered from allied nervous conditions, as epilepsy, or been habitual drunkards. Then there are the indications connected with the natural disposition of the individual himself, which mark a proneness to mental irregularity. These may be briefly noticed.

Men are sometimes divided into active and

passive, according to their natural temperament. From this point of view there can be little doubt that as a rule the passive, receptive temperament is more liable to insanity, and certainly to hysteria, than the active robust temperament.

It may safely be said that there is a predisposition to insanity with those who possess a decidedly limited mental calibre. I do not mean anything like imbecility, but a mind of delicate structure and narrow range of power. It is a frail bark easily shattered, infirm of purpose, led this way and that by the currents of life, and quite unfitted to contend with the storms of the world. Such minds are, to a large extent, the offspring of civilisation, for had they been born among savages they would not have survived to maturity. They gravitate towards a "Retreat."

This constitution of the mind must be distinguished from an allied but different organization, which is marked by native stupidity, and constitutes an infirm type of humanity largely met with in the lower classes, and especially the population from which the great county asylums of England are fed. On admission, "no good" is plainly inscribed on their foreheads; and their physical and mental antecedents convince the physician that recovery is doubtful, or if it should occur, that a relapse will almost certainly follow.

Then, again, there are many persons who are, it

is not difficult to see, constitutionally melancholy. It is their habit of mind to view the circumstances around them in a sombre light. Nature seems to have interposed between them and the world in which they live and move, glasses of a dark colour which tinge all they behold in the various relations of life, in society, in the events which make others happy or at least content, and of these it may be truly said,

“They make a death which Nature never made.”

Although it is quite possible for these persons to possess both wit and humour, such a temperament may be quickened into morbid activity by any great affliction. Not unnecessarily to multiply divisions, I may include under this the nervous temperament, though not altogether identical. No one would think of calling the above described persons insane. Their temperament, however, is one which predisposes the individual possessing it to insanity—in their case to actual melancholia—which makes life an intolerable burden, renders those who labour under it no longer fit to be trusted with the care of themselves, and frequently leads to self-destruction. To those who are born with this temperament, it is most needful that they and those who influence them should be alive to the extreme importance of bracing the spirits with a stimulating mental

atmosphere, of supplying the mind with really healthy nutritive food—not a hash of old, juiceless, marrowless material, on which the mind sickens or starves.

I pass on to another temperament, one easily recognised, the excitable. It is a painful temperament both for those who have the misfortune to own it and for those who come in contact with it. It is often associated with the so-called choleric temperament. Excitement frequently alternates with depression—an individual passing through high, and at the time, enjoyable states, to those of an entirely opposite character, without actual insanity being developed. There may be considerable mental ability, but it cannot be safely depended upon. There wants ballast. It is difficult to one who has this temperament to view subjects as they arise in daily life with calmness; he is unable to reason quietly upon them; he is impulsive and often passionate: he is just the reverse of being able to take life philosophically; he is on wires, and the slightest circumstance disturbs his equanimity; he knows little of repose, but is elated or depressed by a thousand petty circumstances which a well-balanced mind would disregard, and he is distracting to those who have the misfortune to live with so unsettled and unequable a character. In common parlance such are often styled “flighty people.” But I may

leave the reader to fill up the details of this sketch. It is hardly likely he has not the pleasure of the acquaintance of some one with this excitable temperament. Is it necessary to say that there is a great danger of such an one "going off the hooks," to use a vulgar but forcible expression, and eventually suffering from actual mania?

There is another temperament—the depraved—and this will be the last, although it would be easy to describe finer shades of natural character which possess their special sensibilities and their peculiar susceptibilities. Of this disposition I may say that its chief mark and characteristic lies in the absence or want of susceptibility. There is in truth a dull moral sensibility. I do not say blunted, because it appears to have been always deficient. There is a flaw in the moral nature, a proneness to depraved acts in one form or other, which people do not recognise as indicating a tendency to insanity; but which may eventually develop into a condition that requires medical care, and one which, when studied by a psychologist presents no difficulty, in so far as he has not any hesitation in regarding it as the outcome of a native habit—a peculiar brain. Wayward and headstrong boys so constituted give infinite trouble. Such a disposition ought assuredly to be recognised by parents and the masters of schools (and I may add mistresses, for unfortunately, it is

no stranger to the female sex), and a very special training ought to be carried out in the hope of giving a right direction to a character with such melancholy proclivities, and checking and restraining as far as possible the growth of morbidly strong propensities.

In these and in other mental and physical characteristics, forming as they do tolerably distinct types or temperaments, we may read in characters sufficiently clear for practical purposes the indications of a liability, greater than that of others differently constituted, to the loss of reason, whenever the exciting causes of insanity come into play. When a man knows that he is constitutionally liable to this disease, it certainly behoves him to shelter his mind from the shocks and trials of life as much as he possibly can, and to content himself with a less ambitious flight than what he may desire; to check his nervous irritability, not only by struggling against it, but by placing his bodily health in the best possible condition; to learn the laws upon which mental, no less than physical well-being depends, assured that whoever else may break them with impunity, he shall not be permitted to escape; that the remorseless Sisters will undoubtedly spin and cut the thread of his mental life in accordance with his original taint, unless he evades their scissors by cautiously directing his course at a safe distance

from their range. *Procul à Jove, procul à fulmine.*

The man with a well-constituted mind, on the other hand, in its two grand attributes, the reason and the emotions, is far less exposed to danger. He may be somewhat dry and prosaic. But if we cannot justly regard him as a brilliant genius who dazzles while he delights us, or as one who charms us by the fascination of a morbidly contemplative and melancholy cast of mind, we cannot observe without pleasure mingled with esteem amounting to veneration, the happy balance of character, the force which is proof against the shocks of life, the preservation of his mental equipoise, tested, it may be, by the extremity of both joy and sorrow—prosperity and adversity—but never disconcerted by either.

It must always be remembered that, in a number of instances, the *form* of insanity is not an exaggeration of the natural temperament, but is in marked contrast to it. The melancholy become excited and joyous; the excitable morbidly depressed. At the same time it is quite true that the constitution or temperament of the patient was the predisposing cause of the insanity, although it did not retain its natural complexion.

I have preferred drawing attention to the mental rather than the physical characteristics of these temperaments or dispositions, because they

are essential conditions, and because they are more easily recognised, while the physical signs though often a guide to the physician, are variable and not easily appreciated by unprofessional persons. Still, there are salient indications of mental tendencies, such as the habitual facial expression affords, the anxious lines, the tendency of the grief-muscles to contract, observable in the melancholy temperament, and the characteristic expression of the excitable temperament. Then the general appearance and action of a person of feeble mental constitution speaks for itself, whatever may be the physical structure with which it is associated ; nor is it difficult to decipher the temperament of the peculiar depraved type which I have described, in the sinister look and the general expression which reveals so many unpleasant possibilities ; the potentialities of what would be vice, but for its origin in structural defect of the brain. All these are obvious marks indicating the associated bent of the natural disposition, and the doubtful capacity to steer through the troubled seas and whirlpools of life, without being dashed on the rocks where already lie strewn so many sad proofs of mental wreck.

CHAPTER X.

IMPORTANCE OF CHEERFULNESS, SUFFICIENT MENTAL REST, ETC.

THE School of Salerno¹ taught that those who stood in need of physicians should employ these three: "a cheerful mind, rest, and a moderate diet."

"Si tibi deficient medici, medici tibi fiant
Hæc tria—mens hilaris, requies, moderata diæta."

This advice no doubt contains in a few words a vast amount of truth, and perhaps if one had to choose a text for one's sermon, it would be difficult to find a better. Plato says in the *The Republic* that excessive sorrow and excessive laughter are equally unbecoming a man of worth. The endeavour to be cheerful is undoubtedly one of the various preventives of insanity; the giving way to gloomy moods an easy first step down

¹ The School of Salerno is said to have been the first University in Christendom in which Medicine was taught. It was founded by Charlemagne. A treatise on Hygiene—*De Conservandâ Valetudine*—bearing its imprimatur, attained great celebrity.

into the Slough of Despond, and the morbid mental depression which constitutes one form, and perhaps the saddest form, of mental disorder. Where gloom and religion have been confounded together as they have been by some, this result cannot surprise us. Such might remember that St. James, so far from countenancing so injurious a notion, could see no incongruity between a merry heart and psalm-singing. Let them cultivate a happy, joyous mood of mind—let them banish the sense of care and anxiety instead of nursing it, and avoiding solitude, enjoy the cheerful and refined society within their reach. Let them relax the mind thoroughly : herein, I do not doubt, lies one of the grand secrets of preserving the mind free from attacks of insanity. Relaxation, though it may involve merriment and a complete *abandon* of spirit, does not mean inane frivolity, or insipid folly, still less does it mean the abuse of stimulants. Just as the good people I have spoken of confound gloom and religion, so some people appear to confound relaxation with practices which injure the body and endanger the health of the nervous system. Extremes meet : religious asceticism and dissipation may end in the same melancholy goal. Here good is not “the final goal of ill,” but ill the final goal of wholly diverse conditions—the one good, the other bad. We are all so justly alive to the

mental evils which flow from immoral courses of life, that we may have our attention diverted unduly from those which also spring from moral courses, when associated with narrow and distorted views and habits of life, well-meant, but injurious to the health.

Yet it is absolutely needful that we should not disguise the fact, but look it honestly in the face; and I would in unmistakable language sound the note of alarm and warning to all who allow themselves constantly to dwell upon one religious idea, who lead a life of gloomy fanaticism, or who become absorbed in a morbid mysticism. Of these states let the reader be assured that they are dangerous and imperil his mental health, and let him say, before it is too late,

“O that way madness lies—let me shun that !”

In some instances a special form of fanaticism is developed; the whole texture of the mind is injured, its fabric weakened, and its possessor finally settles down in the belief that he is the infallible organ—the appointed exponent—of Divine Truth, a delusion which involves indeed a worship of self, not less truly because this worship is in name referred to Omnipotence, and not less mischievously a worship because, in fact, to the error of the self-adoration which the belief confers, are added the error of the assertion of an

infallibility which aims at deluding others, and the even greater error of a presumption which would delude if that were possible, the Omnipotence who, it professes to believe, approves the delusion.

Looking at the opposite dangers which beset the mind in its relations to mysticism, it may well be said that mental safety will be greatly increased by pursuing that middle course between them which an honest appreciation of the laws of the emotions and the organ through which they act, indicates and enforces; that path which, while it avoids and deprecates fanaticism, clings no less firmly to the divine and the really spiritual. The religious needs which the religious consciousness demands, will never cease to be the needs of humanity; and it is therefore the duty of those who know the power for good or evil which religion may exert, according as it is well or ill directed, to maintain, on the one hand, with Mr. Morell, that since the highest conception of Deity which our reason can form is a very cold and abstract one—since even all the descriptions which the page of revelation gives us of the attributes of God, form but a very indistinct image upon the mind that simply puts these notions together by a logical process, and has no community of feeling with Deity itself—that since this is so, we must rise, in order to gain a deep insight into the perfections of God, to a communion of the heart and

sympathy of feeling with him—"a true and valid mysticism which has to be cherished in every mind which thirsts after God"—and to insist, on the other hand, that the physical must not be forgotten in the spiritual. Illustrative of this is the parallel danger in art. Indeed I could not show better what I mean than by quoting what Ruskin says on one-sided ways of treating art. "The basest thought possible concerning man is that he has no spiritual nature; and the foolishlest misunderstanding of him possible is that he has or should have no animal nature. For his nature is nobly animal, nobly splendid, coherently and irrevocably so; neither part of it may but at its peril, expel, despise, or defy the other. All great art confesses and worships both."

I have said that the second prescription of the Salernian School of Medicine was rest or quiet. If deemed necessary in the Middle Ages, how infinitely more so in our railway age. If on this subject—Life at High Pressure—Mr. Greg has exaggerated, as some think he has, the evils arising from *speed* in its various forms, I think he has done well to point out, in the graphic and forcible way he has done, the injury undoubtedly done at the present day by sacrificing so much health, so much life, and so much mental quiet on

¹ *Speculative Philosophy of Europe in the Nineteenth Century.*
By J. D. Morell, A. M., vol. ii. p. 629 (2nd Edit.).

the altar of haste; haste to travel, haste to grow rich, haste to live, and haste to write and speak and gain knowledge. That hasty living in these and other forms has something to do with causing insanity I do not at all doubt, while fully admitting that mental evil is also wrought, in the highly civilised England of to-day, by stagnation of mind, and by an absence of sufficiently active occupation. It is impossible not to feel the force of Mr. Greg's remark that "a life without leisure and without pause—a life of haste and excitement—a life filled so full that we have no time to reflect where we have been and where we intend to go, what we have done and what we plan to do, can scarcely be deemed an adequate or worthy life. It is a life which assuredly will not approve itself to us in those hours of enforced quiet and inaction which age or sickness brings sooner or later to all. Few estimate adequately the degree in which an atmosphere of excitement is fatal to the higher and deeper life; the subtle poison which it disseminates through the whole character, and how it saps the solidity and strength of the mind." "One effect of this high pressure existence is that it leaves even the successful man who has gained much to retire *upon*, nothing to retire *to*; for literature, science, domestic ties, public and philanthropic interests, nature itself, have all been neglected and lost

sight of during the mad rush and struggle of the last thirty years, and these are treasures the key to which soon grows rusty, and friends once slighted cannot be whistled back at will."

Multiplicity of impressions upon the brain, made in rapid succession, without sufficient time allowed to admit of their separate and distinct reception and assimilation, is one danger of our time which requires to be brought into prominent relief, and strenuously guarded against. Yet a thousand agencies are at work resolutely directed to intensify this evil. Every one knows the impression produced upon the eyes by the attempt to read rapidly several articles in a magazine: the eye ache, the soreness; the confusion of images; the exhaustion; and the student of the microscope knows the sensations which follow imprudent work in his department. Parallel results succeed mental application to the enormous mass of subjects which modern science and literature embrace, and in which almost every student is now-a-days expected to be an admirable Crichton.

It is all the more necessary that every medical psychologist should encourage a complete relaxation and comparative mental rest from the ordinary work of life during one day in the week; the suspension, as far as possible, of subjects which absorbingly engross the attention. Were England to merge Sunday into the other days of

the week, or increase the difficulty of escaping from a merely planetary current of thought and feeling and the distracting cares of life, it would vastly augment the evils of which we complain, and would destroy a most valuable antidote, rightly used, to the wear and tear of modern life in this country. Abused, it is a curse.

As there is a profound need in man's nature for activity, so is there also for repose, and as Milton says :—

“Wisdom's self
Oft seeks to sweet retired Solitude ;
Where, with her best nurse, Contemplation,
She plumes her feathers and lets grow her wings,
That in the various bustle of resort
Were all too ruffled, and sometimes impaired.”

Calmness thus favoured by periodical mental rest and change of object, is a frame of mind increasingly desirable to cultivate and maintain in the struggle for existence in which men so fiercely engage, in the fretting trials which beset them, in the perplexities which arise in an age in which we can no longer say with the old Duchess that we were “born before nerves came into fashion :” at such a time, I say, to maintain a calm founded on the divine philosophy of life which places the object of existence in something higher than selfish ends—riches, fame, material success—is one of the safeguards against the inroads of mental disorder, and stands forth in forcible contrast to

the state of mind depicted by Shelley in the depressing lines :—

“ Alas ! I have nor life nor breath,
Nor peace within, nor calm around,
Nor that content, surpassing wealth,
The sage in contemplation found.”

No one can speak more feelingly of the pressure of the age in which we live than Mr. Gladstone, “ The great drawback and great misfortune ” he said in one of his Dublin speeches, “ in the public life of public men at the present day, is that which I may describe by the word *excess*. I have always felt it to be like a kind of moral dissipation, so rapid is the rush of affairs, so incessant the calls upon time, so far does the necessity for thought and reflection on the one side, and on the other side the necessity for action, transcend all the means that even the most willing, and in some cases the most vigorous, man may be able to bestow.” (*Daily News*, Nov. 8, 1877.) Mr. Gladstone said also to his auditors, “ You would be surprised, if I were to tell you how small a portion of my time is at my own disposal at any period of the year, and how imperative has usually been the necessity of my bestowing it in such a manner as would bear most directly upon the maintenance and preservation of the physical strength which is an essential condition of the performance of public duties.”

The advice is very easy to give—very difficult to follow—master the great art of preserving equanimity of temper. Aim at a due combination of rest and action. As even the heart rests from beating during a considerable portion of the day, so must a sufficient amount of complete mental repose be secured. Life, like the heart's action, ought to be made up of systole, diastole, and pause. Force and energy must be employed upon the purposes of our existence; man must give out his powers in various directions and work hard at a definite and worthy object, but he must also be a recipient of fresh impulses and vitality; and he must, as we have insisted, relax and repose when signs of exhaustion present themselves.

Although a man must ascertain and obey the laws of health, he must not think of his own health too much. For it is quite possible, however paradoxical it may sound, to render this obedience, and yet forget self in the occupations and interests of daily life.

Hence Ruskin, in his *Modern Painters*, has said, if a little too broadly, with very great truth, that all the diseases of mind "leading to fatalist ruin consist primarily in this isolation. They are the concentration of man upon himself, whether his heavenly interests or his worldly interests matters not; it is the being *his own* interests which makes the regard of them so mortal. Every form

of asceticism on one side, of sensualism on the other, is an isolation of his soul or of his body; the fixing his thoughts upon them alone, while every healthy state of nations and of individual minds, consists in the unselfish presence of the human spirit everywhere, energising over all things, speaking and living through all things."

The path, then, towards the preservation of a healthy mind, in other words, escaping an attack of insanity, is sufficiently plain, though I cannot speak quite so sententiously as in the words of advice of an old Irish physician which I once heard in Dublin, "Keep," he said, "your *skin* clean, your *stomach* clean, and your *conscience* clean;" excellent advice, which would no doubt go a long way in preventing mental as well as bodily disease.

It is most important to cultivate the mind, as I have said, steadily and with some definite aim, but let it have a variety of food, a change of occupation. Let not the mind lose its elasticity.

I remember reading in the life of Andrew Reed a very good resolution which he made, namely, that he would watch lest the presence of serious duty destroy the play and elasticity of his spirits, which, he adds, are essential to life. Also he resolved that a multitude of engagements should not irritate nerve and temper.

There must be few who have not observed in

their own experience, how monotonous mental occupation tires them. The analogy between the needs of the body and the mind is, in this instance, as in many others, a safe one to follow. We require a change of diet; the poor often suffer from being unable to indulge in variety as well as from actual want. In the same way the mind suffers from lack of variety of mental food. It loses in tone, and mental dyspepsia is the consequence. A game of chess may require quite as much thought as the work a man is engaged upon, but it constitutes a complete change, and is therefore as desirable as the substitution of a tapioca for a rice pudding.

There is then a great deal not only in work, but in the kind of work.

A sailor's life, for instance, exposes him to many dangers, but not to that of insanity, so long, at least, as he is at sea. As Ruskin puts it, "the ocean-work is wholly adverse to any morbid conditions of sentiment. Reverie, above all things, is forbidden by Scylla and Charybdis. By the dogs and the depths, no dreaming! The first thing required of us is presence of mind. Neither love, nor poetry, nor piety, must ever so take up our thoughts as to make us slow or unready. In sweet Val d'Arno, it is permissible enough to dream among the orange blossoms, and forget the day in twilight of ilex. But along the

avenues of the Adrian waves, there can be no careless walking. Vigilance night and day required of us, besides learning of many practical lessons in severe and humble dexterities, all which not only takes mean pride out of us, and puts nobler pride of power in its stead, but it tends partly to soothe, partly to chasten, partly to empty and direct the hot Italian temper [he is speaking of the Italians], and make us every way greater, calmer, happier."

Undoubtedly a sovereign remedy for the mental disorder to which those are liable who have no active occupation, is regular literary work. It will impart a new direction to their thoughts, and dispel the mists which are collecting around their path. Composition steadies and concentrates the intellectual functions when disposed to take on irregular action, and an object is afforded which relieves the *tedium vitæ*, and diverts the attention away from self, and all the little world of subjective feelings, to something better : for anything is better than self. These pursuits we may well say with Cicero, "are the sustenance of youth, the delight of old age ; in prosperity an ornament, in adversity a refuge and solace ; at home, they give us pleasure, out of doors they are not in our way ; with us they spend the night, sojourn in foreign parts, and live in the country." And as Lord Bacon in his *Essays* says, after observing

that gentle walking is good for the stomach, and riding for the head, adds, "so if a man's wit be wandering let him study the mathematics, for in demonstrations, if his wit be called away never so little, he must begin again; if his wit be not apt to distinguish or find differences, let him study the schoolmen, for they are *Cymini Sectors*; if he be not apt to beat over matters and to call up one thing to prove and illustrate another, let him study the lawyers' cases; so every defect of the mind may have a special receipt."—"Of Studies.")

Let a man be sure, then, that the cultivation of his taste for what is refined and beautiful, whether in literature or the arts, the careful improvement of his faculties, or the steady pursuit of some science, will—if followed with a distinct aim, worthy of a moral and intellectual being—prove a safeguard against many of the disorders of the understanding.

Reading, so it be done with an object, will prove of use, "I have known some people," says Lord Lytton, "fly to a novel or the last light book in fashion; one might as well take a rose-draught for the plague! Light reading does not do when the heart is really heavy. . . . In a great grief, you cannot tickle and divert the mind; you must wrench it away, abstract, absorb, bury it in an abyss, hurry it into a labyrinth. . . . If science is too much against the grain, something in the reach

of the humblest understanding, but sufficiently teaching to the highest—a new language—Greek, Arabic, Scandinavian, Chinese, or Welsh !” (*The Caxtons*, ch. xlv.)

So acting, he will not have to bemoan the hours of idleness and dissipation which relax the mental fibre, and cause fatty degeneration of the mind. He will not have to blush for a course of life which has undermined his physical powers.

If we obey the mandates of our enlightened conscience, we shall doubtless often shun the causes of insanity, without any idea of such being the result ; but it is not the less true that religion separated from physical knowledge, spiritual aspiration apart from an attention to established laws, devotion to good, not united with obedience to the restrictions imposed by the nature of our being : nay, even love to God itself, detached from conformity to the conditions He has imposed on His own handiwork, are dangerous to the integrity of the brain, and may pave the way to the derangement of its delicate machinery, liable as it is to fall into disorder in proportion to its complex construction.

On parents and the educators of youth a heavy responsibility lies, for they may do much to lay the foundation of future insanity, and much by timely care to prevent it. I do not refer here to the mode of conducting mental work only, but

to physical exercise also. I agree with Dr. Tanner¹ when, in speaking of the use of gymnastics in hypochondriasis, he says, that so far from being an advocate for those violent athletic exercises in which one youth is pitted against another, he is strongly inclined to condemn them, and that what is really desirable is "a methodical system of drill and exercise fitted to produce a sound constitution in the average boy. To secure this, every school ought to have a well fitted gymnasium, attendance and work in which should be as regular and systematic as in the classroom. Not that any compulsion would be necessary, for undoubtedly, one part of a clever teacher's business would be to prevent the young plucky gymnasts from performing too venturesome feats before they were sufficiently prepared. . . . In hypochondriasis, I have seen the greatest benefit from recommending young men to go through a modified system of physical training. By this means the invalid not only relieves his weary mind at the time, but while bringing the various muscles and tissues into play he obtains general vigour, energy of body, buoyancy of spirits, a power of self-command, and in short that happy desirable feeling which constitutes perfect health." I also agree with this author that pedestrian tours are of great service in such cases.

¹ *The Practice of Medicine* (7th Edit.), vol. i. p. 530.

Masters, parents, and society itself have claims as well as duties and responsibilities. It is true that man, when viewed in relation to society, must be individualised. Indeed a sign of the age in which we live is the importance of man as an individual. He is distinct from the mass. This is as it should be, no doubt, but this sharply brought out individuality has mental dangers, against which it is his duty to guard. Every one thinks for himself, acts for himself, proclaims his own opinions ; he walks on his own feet, he feels that the ground he treads upon is as much his as any one else's. Independence of others, freedom from authority, impatience of restraint, these attitudes of mind, in modern life, have like all forms of unfettered freedom, their evils as well as their blessings. To escape the former, the freedom of the individual must be guarded, tempered, and controlled by one inflexible condition—the humility of a Newton. He must escape from what Emerson happily calls “the goître of egotism.” Otherwise there is great reason to fear that he will pass into a frame of mind in which the ten commandments are replaced by two—to love thyself with all thy strength, and to despise thy neighbour. I do not think there is much danger at the present day, of an ascetic education, which would destroy the spring, and damp the gaiety of the young, which would impress upon them that the only allowable

change from serious and solemn thoughts is the pursuit of wealth, that it is criminal to indulge in relaxation and the gratification of the senses, however moral, in short that every one of our tastes and propensities must be mortified, every outburst of mirth and vivacity repressed and all merriment prohibited, in order that every hour may be employed in the accumulation of money, or in the concerns of religion. I say I do not think there is much fear of a training like this, which must end in extinguishing the healthy and unconscious play of animal life, and cause a certain undefined dread often amounting to terror, in the sense of a Damocles' sword of approaching vengeance hanging over the devoted head, but wherever it does exist, it undoubtedly forms a more than possible cause of mental derangement. Rather, in our day, is there a tendency to spoil children from their earliest years, to grant them everything they wish, to gratify them in every self-indulgence, so that manhood or womanhood finds them conceited, impatient of all control, and far, very far, from trained to live lives in accordance with the laws of mental, moral, and physical health.

The present generation suffers from an evil the reverse of that from which their forefathers suffered—the want of restraint and obedience. The order of nature is often reversed, and the result

is but too frequently a character weakened by indulgence, uninured to self-denial or self-sacrifice, and ill-prepared for the stern battle of life. In despair at the effects produced by this monstrous system, or no system, of education and training, a harsh tyranny may make a desperate effort to regain ascendancy, but alas! domestic misery ends the story which domestic weakness began. Parental tyranny is said to have driven the son of a celebrated man to insanity; and there can be no question that to crush the affections, or to ignore any side of life or nature in youth, is dangerous to future mental strength and completeness. Undue repression dwarfs the faculties when it does not derange them; and the mechanical obedience obtained for the sake of peace, in place of the obedience springing from love and reverence, is unfavourable to the free action of the power which deftly weaves the warp and woof of mental life.

In America, medical men have for many years and quite recently, protested against the evil influences at work in their social and their political life, and pointed out their operation alike on body and mind. The Asylum Reports of Ray, Earle, and others, have been full of such complaints and warnings; and to a certain extent we feel the influence of these agents in our own country. One American alienist physician

complained, some years ago, that their "boasted Republican civilisation" nullified, in all its practical operations, the healthy influence of parental example upon the formation of the character; that faith in the good and true in men; in the goodness, truth and justice of a higher Power to whom we owe allegiance, was shaken; that their social life scattered widely the seeds of distrust; developed precocious ideas of independence instead of obedience; and made youth familiar with evil before it was prepared to judge intelligently, and when it should be shielded by parental care. He thought these evils were but too plainly exemplified in the mental traits characteristic of "young America," and in the increasing stream of depravity, and disease both physical and mental, which permeated the social fabric, and threatened to injure not only the present but future generations. Another finds a cause of insanity in the neglect and misdirection of early education, and inveighs strongly against the excessive freedom of thought and action exercised by every individual; the high degree of excitement called forth in the pursuits of life; emulation; the rapid succession of sorrow, and joy, fear, and hope; and consequent loss of mental equilibrium. He considers that facts justify the conclusion that "our form of government, with the habits of our people, is

calculated to increase rather than diminish the frequency of insanity.”¹

Let me also cite a paragraph which appeared in the *Philadelphia Times*,² in the summer of 1877 :

“What a terrible satire upon our boasted free school system is conveyed in the word ‘educated.’ Nine-tenths of the young criminals sent to the penitentiary have enjoyed school advantages, but three-fourths of them have never learnt to do an honest stroke of work. Our children have their poor little brains crammed full of all kinds of impossible knowledge, of names and dates and numbers and unintelligible rules, till there is absolutely no room left to hold any of the simple truths of honour and duty and morality, which former generations deemed more important than all the learning of the books. There is just one thing that is ever held before them—that one man is as good as another, if not a little better, and that every boy among them may expect to become President of the United States, and every girl the richest lady in the land. The result is that they leave school utterly ignorant of all that is most essential for them to know. And, outside

¹ Both these physicians, Dr. Cook and Dr. Smith, were, at the time of writing, superintendents of asylums for the insane.

² See *Industrial Education versus Crime*. Issued by the Howard Association, Aug. 1877.

of the schools, there is no provision for their learning anything."

It is not in America alone that the striking remark made by a distinguished French mental physician—M. Esquirol—deserves to be remembered, "We take great care to form the mind, but seem to forget that the heart, like the mind, has need of education." In still stronger language wrote Sir Walter Scott: "We shall never learn to respect our real calling and destiny, till we have taught ourselves to consider everything as moonshine compared with the education of the heart."

"Self-reverence, self-knowledge, self-control,
These three alone lead life to sovereign power."¹

¹ Some striking observations will be found on the subject treated at p. 180 in Brown's *Lectures on the Human Mind*.

CHAPTER XI.

IMPORTANCE OF DIET.

THE third canon of the School of Salerno—"a moderate diet"—suggests a wide and copious topic for discourse, inasmuch as it embraces the whole question of the use and abuse of alcoholic drinks. I am not going to write a sermon on temperance, but if words of mine would induce any one to avoid the intemperate use of these beverages, by pointing to the numberless instances in which, either directly or indirectly, intemperance causes insanity, I should feel that I had not written in vain—and had to that extent done something towards the self-prevention of the disease. "Drink but little wine," said the wise doctors of Salerno, "eat light suppers, and do not disdain to take some exercise after meals." I would urge upon all young men and women the folly of the large imbibitions of wine, so common even in perfect health; a folly arising from habit, custom, and perhaps ignorance of the detriment

done to the healthy working of the functions of the brain by such a practice.

“’Tis such a cruelty as ne’er was known, ‘
To use a body thus, though ’tis one’s own.”

Notwithstanding the laudable efforts of temperance societies, the amount of wine annually consumed increases beyond the growth of the population. Between 1791 and 1800 the number of bottles per head amounted to $2\frac{1}{2}$; from 1811 to 1860 the number fell to $1\frac{1}{2}$; but at the present time the figure stands at somewhat more than 3. Drunkenness was increased by the Beer House Bill of 1830, which brought into existence in a single year, about 30,000 new houses for the sale of liquor to be drunk on the premises. In 1860 and 1861 other measures were adopted facilitating the consumption of wine and spirits. These enactments have favoured the spread of insanity in England, or neutralised opposite influences.

In France, M. Lunier has shown that the consumption of alcohol nearly doubled between the years 1849 and 1869, and the cases of mental disease rose 59 per cent. among men, and 52 per cent. among women. He also finds that in those departments which do not cultivate either wine or cider, but produce alcohol, and where the annual consumption rose in twenty years from 3·46 lit. per head to 5·88, insanity from drink rose

from 9·72 to 22·31 per cent. with men, and from 2·77 to 4·14 with women. Yet an American doctor had the hardihood to assert at the International Medical Congress in Philadelphia held in September, 1876, that medical men allow themselves to be governed by the hue and cry of professional temperance orators, for it could not be proved that alcohol exerts much influence on the production of nervous diseases. The assertion may be dismissed with the statement made some years ago by another American physician, devoted to the study of questions relating to mental disease, Dr. Jarvis, that insanity will increase and diminish (other causes of insanity being equal) according to the degree in which intemperance extends, illustrated by the fact that while the cases received into the Worcester Asylum (U.S.) from drink were 19 per cent. of the admissions during four years when this indulgence was most prevalent among the surrounding population, they fell to 4·5 per cent. during a period of the same duration when the Temperance Reformation was at its height. If prevention is better than cure, the bearing of this on our subject is unmistakable.

Having in previous chapters entered at some length on the relation between insanity and intemperance, I shall not add more, further than to say that I do not deny that there are instances of persons whose mental condition is benefited

by the use of a diet into which some form of alcohol enters, especially the light wines and beer. The misfortune is that the very people who are likely to be thus benefited, are often to be found among those who from noble motives abstain from wine. Thus it comes to pass that the folly and wickedness of intemperance involve a double evil. Intemperance not only injures those who yield to this vice, but it leads many by a natural reaction and indignant recoil arising out of the knowledge of such abuse, to deprive themselves of a beverage or even a medicine which might act in their case beneficially, in gently stimulating the functions of the brain and lessening the tendency to nervous irritability and languor. Those who thus suffer from the want of a moderate stimulant, and fall into a depression which might have been warded off by their use, are, I maintain, the victims of intemperance, and their discomfort or actual insanity lies at the door of the drunkard.

The late lamented Edward Parkes, who studied this subject deeply, thus speaks in his standard work on *Hygiene* :—

“ In spite of much large experience, it is uncertain whether alcohol really increases mental power; whether the brain finds in alcohol a food which by itself can aid in mental work. The brain circulation is no doubt augmented in rapidity; the nervous tissues must receive more nutriment and for

a time must work more strongly; ideas and images may be more plentifully produced, but it is a question whether the power of clear consecutive and continuous reasoning is not always lessened. In health, alcohol is not a necessity and many persons are much better without it.

“It is evident that in beer we have a beverage which can answer several purposes, namely, can give a supply of carbon hydrates, of acid, of important salts (especially potassium and magnesium phosphates), and of a bitter tonic (if such is needed) independent of its alcohol, but whether it is not a very expensive way of giving these substances is a question. In moderation, it is no doubt well adapted to aid digestion and to lessen to some extent elimination of fat.

“Different spirits act differently on the nervous system. Absinthe is especially hurtful, apparently from the presence of the essential oils of anise, wormwood, and angelica, as well as from the large amount of alcohol. There can be little doubt that alcohol enters into temporary combination with the nervous structure; and when special sense or muscular power is impaired, interferes with the movement of the nervous current. The dangerous physiological actions in health when its quantity is large, are evidently its influence on the nervous system generally, and on the regulating nerve centres of the heart and vaso-

motor nerves in particular; the impairment of appetite produced by large doses, the lessening of muscular strength, and remotely the production of degenerations." Dr. Parkes regards the *maximum* amount of alcohol which a healthy man should take in the twenty-four hours, *if he takes any*, as 1 to $1\frac{1}{2}$ fluid ounces, which is equivalent to 2 fluid ounces of brandy, or 5 ounces of sherry, &c., or 10 ounces of lighter wines (claret, &c.), or 20 ounces of beer.

Can we in 1878 express ourselves very differently from Hesiod of old, "Wine, I in part commend thee, partly blame; neither can I wholly either ever hate or love thee. Good art thou and bad. Nay, who would blame thee, or who would praise thee, if he has due measure of wisdom?"

In the Reports of the Lunacy Commissioners are to be found many just observations, but none juster or more germane to the subject of these pages, than these words which occur in their Report for 1869:—"The Prevention of Insanity is not only a far nobler object than the provision of accommodation after the mischief has been done, but it is one which there is reason to hope would greatly contribute to sap the sources of pauperism."

As the most marked apparent increase in the number of the insane in England and Wales

during the last twenty years has been among the poor, any attempt to devise means to prevent the spread of insanity, would obviously be wanting which did not have reference to this class, although as my primary object now is the self-prevention of insanity, and this work is addressed to the educated classes, my remarks are mainly directed to the action of individuals of these classes upon themselves.

Whatever raises the masses from the depths of misery, want, and degradation, favours the health of the brain. "People often talk," said Canon Farrar recently, at the Westminster Working Classes Industrial Exhibition, "about raising the working classes. Nobody could raise them but themselves. Classes rise as individuals rise, and as nations rise, by attending to those great eternal moral laws of God upon which true success and happiness can alone be founded. If England would only learn, and if the working men would only learn, the way to be really happy and successful as a nation and as a class, it would be that they should be sober and self-respecting. If they would only learn not to be too easily misled by specious and plausible arguments; if they only learned—for I am obliged to speak the truth—to spend considerably less at the public-house and considerably more at their own homes; if they only learned to spend that thirty-six mil-

lions which they now spend in beer and spirits¹ upon the interests of their wives and families; if they only learned the lessons, temperance and thrift—which two ‘T’s’ are more important at the present time² than the famous three ‘R’s’—if they did thus,” the Canon went on to observe what benefits would follow, to which we may add the prevention of insanity to a very large extent indeed. And although the working classes must, in truth, mainly help themselves, all the various agencies now at work in this country for influencing and assisting these classes from whom so much insanity arises, must be regarded with the greatest satisfaction by medical men interested in one of the most important objects that can possibly engage their attention—the removal, as far as possible, of the well-recognised causes of mental disease so frequently referred to in this volume. One means of lessening drunkenness, and therefore insanity, is to improve the condition of artisans’ dwellings. “I know nothing so likely,” Mr. Cross observed not long ago, “to conduce to habits of drunkenness, misery, and degradation, as living in hovels.” He added that

¹ Mr. Levi reckons that of £85 a year, which represents the yearly receipts of the working classes, they spend nearly as much in the single article alcohol, as on clothing, education, health, fire, and lighting all put together, namely, £18 and £20 respectively, while for house rent they give £7.

² Referring to the depression in trade.

if magistrates would only act up to their present powers, as contained in existing Acts, they would find there was a great diminution of drunkenness. In the interests of the insane we hope they will follow the Home Secretary's advice.

Attention to diet, exclusive of stimulants, has an important bearing on the prophylaxis of insanity. The nervous system is nitrogenous, as indeed are all tissues in which force, whether latent or active is produced. Sooner or later, if nitrogen is not supplied to the brain and nerves, they droop. It has been shown that upon the nitrogenous substance serving to compose them and other tissues, depends the amount of oxygen which is absorbed. "Without the participation of the nitrogenous bodies, no oxidation, and no manifestation of force is possible." The chemical composition of the grey matter of the brain in which the mental operations are carried on is in 100 parts as follows : fat 5.96, water 86.26, nitrogenous or albuminous matter 7.78. It contains more phosphorus than the white or conducting matter, there being in its fatty matter 2.1 per cent., while there is 1.66 in that of the white portion of the brain. Dyspepsia not unfrequently paves the way to mental derangement. The sympathy between the brain and the stomach is of the most marked character. A few important facts therefore in regard to diet, so far as it bears

on the subject under consideration may be of use to the reader :—¹

Let a person ask himself, Is the food I am taking excessive or deficient in quantity as a whole, or in any one of the primary classes of aliments, the nitrogenous or the albuminates ; the non-nitrogenous, *i.e.*, the starches ; fat ; or salts.

Are the different articles digestible and assimilable, or from some cause inherent in the food or peculiar to the individual, is there difficulty in primary digestion, or want of proper assimilation ?

Is the quality of the food altered either before or after cooking ?

A great number of diseases are produced, not by alterations in quantity or by imperfection in quality of the raw food, but by conditions of indigestibility, either dependent on physical or chemical conditions of the food itself or of the digestive fluids. Bad effects are produced if the intervals between meals are too long.

In some cases food is taken in such excess that it is not absorbed ; it then undergoes chemical changes in the alimentary canal, and at last putrefies ; quantities of gas are formed. Dyspepsia, &c., are produced. Mental torpor and heaviness follow if the putrid substances are absorbed.

Whether the use of large quantities of meat increases the bodily strength or the mental faculties

¹ They are condensed from Dr. Parkes's work on *Hygiene*.

more than other kinds of nitrogenous food is uncertain.

Oats¹ have been considered even more nutritious than wheat or barley, and certainly not only is the amount of nitrogenous substance great but the proportion of fat is very large. It is second only to barley in salts. The salts and water are as essential as the nitrogenous substances. Lime, chiefly in the form of phosphate, is absent from no tissue; and there is reason to think that no cell-growth can go on without it. The lowest forms of life will not grow without earthy phosphates. Potash and soda in the forms of phosphates and chlorides are important and would seem to be especially concerned in the molecular currents.

The sulphur and phosphorus of the tissues appear to enter *as such* with the albuminates.

If abstention from albuminates be prolonged, there is eventually great loss of muscular strength, often mental debility, and some feverish and dyspeptic symptoms; then follow anæmia and great prostration.

Excess of starches and fats delays the meta-

¹ There is nothing better for brain-workers than oatmeal porridge. It is calculated that 1 oz. of oatmeal, when oxidised in the body, would give rise to energy or heat capable of raising 152 tons one foot high; while with sugar the same energy is represented by 129, bread by 83, meat by 55, and potatoes by 38.

morphosis of the nitrogenous tissues, and produces excess of fat. If decided corpulence is occasioned, the muscular fibres of the heart and of any voluntary muscles lessen in size, and the consequences of enfeebled heart's action are produced.

Coffee stimulates the nervous system. It increases the frequency of the pulse, and removes the sensation of commencing fatigue during exercise.

The large quantity of fat and albuminoid substances in tea makes it a very nourishing article of diet. It has even been compared to milk.

The form in which mischief most strikingly presents itself, in relation to food, to the mental physician, is the insufficient amount obtained by a large number of poor families. "Insanity," observe the Commissioners, "is essentially a disease of the depraved bodily condition, which for the most part is dependent on insufficient or inappropriate food, irregular living," &c.—a fact which does not militate against there being causes of insanity among the upper classes productive of a large amount of insanity, as already shown. The remedy lies in provident habits among the working classes.

Eating too largely is no doubt an evil, and when associated with want of exercise and

occupation, may act prejudicially upon the health of the mind, and form one element, in some instances, of the causation of an attack of mental derangement. That this cause and dyspepsia in general are not to be disregarded, may be judged from the experience of the Americans, much more strongly stated than, I think, any English practices would warrant. A most elaborate work was issued in 1875 by order of the American Government, giving the medical statistics of the Provost-Marshall-General's Bureau, compiled by Dr. Baxter, its chief medical officer, and derived from examinations, made for military service in the armies of the United States during the late war of over a million recruits. One of the contributors, Dr. Ward, of Baltimore, maintains that the American mode of living deteriorates the race more than climate. The Negro is stated to have enjoyed a better physique, because he lived more plainly, and because his habits were more regular. The white man, on the contrary, indulges in every luxury. Dr. Ward holds that eating destroys at least as many people as drinking. "Unceasing mental excitement generally aids our excessive feeding in prostrating mind and body. We awake in the morning weak and unrefreshed from sleep, and at once put on steam of tea, coffee, or more active stimulants, to set the human machine in running condition." It is not surprising

that where such a state of things exists, the consequences are madness, premature old age, and death. At the same time, Dr. Ward would have to distinguish between excessive eating and "active stimulants," in order to prove his position in regard to the effect of the former.¹ The moral, however, seems to be "Give not to Nature more than Nature needs."

¹ I am more disposed to think another contributor to this work correct (Dr. Beard), who draws a dismal picture of "muscle-workers," as a class who have to take continual thought of the morrow, and feel painfully the dreary treadmill by which a hungry household is to be fed.

CHAPTER XII.

CONCLUSION.

A FEW detached observations, for which a fitting place has not been found, must conclude this volume.

The marriage of nearly related persons in whose family there exists a predisposition to insanity is to be deprecated; although it remains to be proved that when no such taint is present, consanguineous marriages in themselves engender madness.

On the first threatenings of insanity, let the person so threatened be removed from associations or surroundings which may foster morbid feelings; complete change of scene is desirable.

Alarm should be felt when the young seek solitude, and society is carefully shunned. The excessive cultivation of the imagination, castle-building, and the absorption of the mind in works

of fiction, are highly detrimental to the mind's health.

For one who has gone deranged from the study of the mathematics, hundreds have become so from studying the mysteries of existence, and endeavouring to solve the problem of evil.

Man forgets or is ignorant of his organisation. Lodged in the shrine of his god-like nature, he thinks that he can rid himself of the shackles with which matter is invested, scorns his physical being, and utterly ignores the reciprocal influence, the mysterious, but certain interaction of mind and brain.

It must never be forgotten that in a large number of instances, insanity comes on insidiously, and that therefore it may be pursuing its silent course, long before maniacal excitement, an attempt to commit suicide, or a violent assault, are witnessed. Hence the slightest suspicions of mental derangement ought to induce careful attention and early care.

It does not fall under the Prevention of Insanity to recommend early treatment in an asylum, but I would hope the prejudice against this course, arising out of false views of the nature of insanity,

may be on the decline. A gentleman who has been insane thus writes to me : " Why should we be ashamed of madness ? we are in very good company ; I am not so mad as Luther and his bag of peas. They are rattling and buzzing in my ears now, but I know the devil has nothing to do with it." Just as the great truths insisted upon in Chapter VIII. are accepted by the community, will there attach neither more nor less stigma to disease of the brain than of any other organ of the body.

One frequent indication of incipient insanity is disregard for external appearances. A man who was tidy in his habits before, becomes slovenly and careless in his dress.

Let all remember that they have not only a duty to perform in relation to themselves, they have not only to do all in their power to preserve their own mental health intact for their own comfort and usefulness, but they owe a duty to their children. Their tendencies and proclivities are to a large extent reproduced in them, and the ball they may have only set in motion in their own life's history, may gain a momentum in their children's which they are powerless to resist. Responsibility from this point of view, the entailing mental disease upon posterity, is a fact which cannot be evaded, and in proportion as it is

regarded in the light of psychological science and hereditary descent, the duty of the regulation and training of the feelings, the reason, and the will, must force itself upon men who have any regard for conscience and right. This is due from man to himself, I repeat; it is due still more to those who will receive from him the direction of their lives without being responsible for it, because powerless to refuse it; those who without having injured him, will have been permanently injured by him, and who after a chequered and disastrous existence, during which mental sight has been blinded by delusions, and judgment by ungovernable passion, die within the walls of an asylum.

The self-prevention of insanity, so far as self-management and control are possible, is then a great duty. If he who has fallen a victim to insanity could unroll the complete map of his former life from the beginning to the end of his course, and patiently retrace the roads and bye-paths by which he had arrived at his present mental condition, he might have to blame a neglected education, ill-regulated passions, vice, and consequent misery, or, if free from these causes, he would probably have to blame what I might best express as the complete mismanagement of his mental functions.

It is, indeed, a more serious, a more selfish act, to jeopardise the integrity of the mental faculties, than life itself. Although the preservation of life is dictated by a deeply implanted law, the law of duty may in many instances not only justify but demand risking the loss of life, with, in some cases, the certainty of forfeiting it. But the instances must be rare indeed in which it becomes a duty to act so as, more or less certainly, to induce a malady which unfits man for the performance of the duties of life while alive, and may entail similar evils on those who succeed him. For these reasons, while a man in the discharge of his duty may, in one sense, be careless of life and count it a secondary consideration, he must be placed in most exceptional circumstances to be called upon by duty to continue to pursue any course of action which he is conscious is bringing on an attack of mania or a state of dementia.

It is difficult to avoid enforcing, in conclusion, the renowned advice of Ovid, well-worn though it be, "*Principiis obsta*," for in no disease is it so essential.

Attack the first symptoms of mental ill-health by appropriate means, with at least as much determination as the first threatening of consumption, or gout, or bronchitis. Repel the invader before he can plant his foot firmly on your

territory. Parley not with the foe ; give him no quarter, but, like Phineas in *Uncle Tom's Cabin*, push him over and tell him he is "not wanted here." Lastly, shape your course in accordance with your hereditary or acquired predisposition to insanity. Remember that mental safety lies in pursuing the golden mean between unbridled indulgence and asceticism ; in moderating the daily perturbations and fevers of life ; in not allowing the ground of the mind to lie long fallow, and so suffering from "the pains and penalties of idleness," as well as from keeping the bow ever bent. By these and kindred means, it may not unreasonably be hoped that some success will be attained in the "Self-Prevention of Insanity."

APPENDICES.

APPENDIX A.

Table Showing the Total Number of Lunatics and Idiots in England and Wales on January 1, 1859, and Subsequent Years, and the Ratio of Increase, allowing for Population.

Years.	Total number of Lunatics, &c., on 1st January.	Proportion to 10,000 of the estimated Population.	Proportion to the Population in various groups of years.	Rates of increase in the several periods (per cent.).	Percentage of rise or decline in the rate of increase in the several periods.
1859	36,762	18'674	19'171	11'199	+4'840
1860	38,058	19'122			
1861	39,647	19'706			
1862	41,129	20'190	21'318	11'741	-15'476
1863	43,118	20'905			
1864	44,795	21'450			
1865	45,950	21'731	23'821	9'924	
1866	47,648	22'255			
1867	49,086	22'644			
1868	51,000	23'236	26'185		
1869	53,177	23'928			
1870	54,713	24'315			
1871	56,755	24'911			
1872	58,640	25'421			
1873	60,296	25'815			
1874	62,027	26'229			
1875	63,793	26'642			
1876	64,916	26'776			

APPENDIX B.

Table Showing the Number of Certified Lunatics and Idiots in Lunatic Asylums, or Confined as Single Patients, in England and Wales, during the 18 years 1859—1876, and the Rates of Increase, allowing for Population.

Years.	Total number of Certified Lunatics on 1st January.	Proportion to 10,000 of the Estimated Population.	Proportion to the Population in various groups of years.	Rates of increase in the several periods (per cent.).	Percentage of rise or decline in the rate of increase in the several periods.
1859	23,001	11'684	12'033	13'912	+3'048
1860	23,859	11'988			
1861	24,989	12'420			
1862	26,369	12'944	13'707	14'336	-40'758
1863	27,505	13'335			
1864	28,544	13'668			
1865	29,637	14'016	15'672	8'493	
1866	31,095	14'524			
1867	32,141	14'827			
1868	33,487	15'257	17'003		
1869	35,005	15'751			
1870	36,269	16'119			
1871	37,266	16'357			
1872	37,592	16'296			
1873	38,883	16'220			
1874	40,170	16'986			
1875	41,558	17'355			
1876	42,880	17'687			

APPENDIX C.

Table Showing the Admissions of Certified Lunatics and Idiots into Asylums or Single Houses in England and Wales during the 18 Years 1859—1876.

Years.	Admissions of Certified Lunatics during each year.	Proportion to 10,000 of the Estimated Population.	Proportion to the Population in various groups of years.	Rates of increase or decrease in the several periods (per cent.).	Percentage of rise or decline in the rate of increase in the several periods.
1859	9,310	4.729	4.715	- 2.651	—
1860	9,512	4.779			
1861	9,329	4.637			
1862	9,078	4.456	4.590	+ 12.200	- 19.623
1863	8,914	4.322			
1864	9,473	4.536			
1865	10,424	4.930	5.150	+ 9.806	
1866	10,051	4.695			
1867	10,631	4.904			
1868	11,213	5.109	5.655		
1869	11,194	5.037			
1870	11,620	5.164			
1871	12,573	5.519			
1872	12,176	5.278			
1873	12,773	5.469			
1874	13,229	5.594			
1875	14,317	5.979			
1876	14,386	5.934			

APPENDIX D (p. 135).

WE unfortunately cannot apply the test of *admissions* to *private* patients for a sufficiently long period to make the comparison valuable, because these have not been distinguished from those of paupers, except during the years 1875 and 1876. It may, however, be stated that in these two years there was an increase of 6·2 per cent., that is to say, for every 100 of the population who became insane in 1875, 106 became insane in 1876. Some have taken the admissions into the private asylums and registered hospitals as representing this class, but those institutions contain too many paupers to make this course reliable. Thus, following it, we should make the admissions of private patients in 1875 and 1876 6,488, whereas they were really 5,254. The fluctuation in the admissions of *paupers* into the institutions referred to quite vitiates the attempt to discover the increase or decrease of the private cases prior to 1875. I may here state that "admissions" in the preceding pages comprise readmissions and transfers. It is greatly to be regretted that these have only been distinguished since 1869. During this period, the rise in the admissions into asylums and into houses for single patients, exclusive of recurring and transferred cases, equals 14·2 per cent. ; while inclusive of the same it amounts to 17·9, showing the importance of this distinction. It is to be hoped that in future the Commissioners in Lunacy will distinguish the readmissions and transfers of private patients and pauper patients, separately, as well as in a lump.

In regard to admissions it must also be remembered that they do not include workhouses and those boarded out. I have been unable to obtain these from either the Lunacy or the Local Government Board.

BY THE SAME AUTHOR.

ILLUSTRATIONS OF THE INFLUENCE OF
THE MIND UPON THE BODY. Designed to Elucidate the
Action of the Imagination. 8vo. 14s.

“To Dr. Tuke belongs the merit of having attempted not merely to adapt his speculations to scientific inquiries, but to confine them within the regular and rigid limits of professional and philosophical investigations . . . When studied as a philosophical disquisition ought to be, and where the physiological and psychological expositions are applied to the pathological changes, the Author’s labours assume a comprehensive character which is worthy of much praise, even when perfect concurrence in his conclusions may be withheld . . . We have examined this volume rigidly and carefully, because we regard it as a valuable contribution to medical literature, as the first scientific attempt to systematise and elucidate the vast number of facts and narratives connected with the interdependence of Mind and Body, accumulated during long periods of observation, or scattered through various and dissimilar treasure-houses; and because the efforts to make clear what has hitherto been obscure, and to reduce within the confines of Philosophy what has hitherto been mainly left within the domain of crude and vulgar speculation, are, in every instance, painstaking, honest, and supported by the testimony of others, even when they are not satisfactory or successful.”—*Brit. and For. Medico-Chirurgical Review*.

Joint Author with Dr Bucknill.

A MANUAL OF PSYCHOLOGICAL MEDICINE.
3rd Edition. 8vo. 25s.

“We regard this Treatise on Psychological Medicine as by far the most complete in the English language.”—*Brit. and For. Medico-Chirurgical Review*.

J. AND A. CHURCHILL, NEW BURLINGTON STREET.

MACMILLAN AND CO.'S PUBLICATIONS.

BY PROFESSOR MAUDSLEY, M.D.

BODY AND MIND: An Inquiry into their Connection and Mutual Influence, specially in reference to Mental Disorders: being the Gulstonian Lectures for 1870. Delivered before the Royal College of Physicians. New Edition, with Psychological Essays added. Crown 8vo. 6s. 6d.

THE PHYSIOLOGY OF MIND. Being the First Part of a Third Edition, revised, enlarged, and in great part re-written, of "The Physiology and Pathology of Mind." Crown 8vo. 10s. 6d.

THE PATHOLOGY OF MIND.

[*In preparation.*]

PART I. PRICE 3s. 6d. ON APRIL 1st.

BRAIN:

A Journal of Neurology.

EDITED BY

DRS. BUCKNILL, CRICHTON-BROWNE, FERRIER, AND
HUGHLINGS-JACKSON.

TO BE PUBLISHED QUARTERLY.

MACMILLAN AND CO., LONDON.

MACMILLAN & CO.'S MEDICAL CATALOGUE.

WORKS in *PHYSIOLOGY, ANATOMY, ZOOLOGY, BOTANY, CHEMISTRY, PHYSICS, MIDWIFERY, MATERIA MEDICA, and other Professional Subjects.*

ALLBUTT (T. C.)—ON THE USE OF THE OPHTHALMOSCOPE in Diseases of the Nervous System and of the Kidneys; also in certain other General Disorders. By THOMAS CLIFFORD ALLBUTT, M.A., M.D., Cantab., Physician to the Leeds General Infirmary, Lecturer on Practical Medicine, &c., &c. 8vo. 15s.

ANDERSON.—Works by DR. MCCALL ANDERSON, Professor of Clinical Medicine in the University of Glasgow, and Physician to the Western Infirmary and to the Wards for Skin Diseases.

ON THE TREATMENT OF DISEASES OF THE SKIN: with an Analysis of Eleven Thousand Consecutive Cases. Crown 8vo. 5s.

LECTURES ON CLINICAL MEDICINE. With Illustrations. 8vo. 10s. 6d.

ANSTIE.—ON THE USE OF WINES IN HEALTH AND DISEASE. By F. E. ANSTIE, M.D., F.R.S., late Physician to Westminster Hospital, and Editor of *The Practitioner*. Crown 8vo. 2s.

BARWELL.—ON CURVATURES OF THE SPINE: their Causes and treatment. By RICHARD BARWELL, F.R.C.S., Surgeon and late Lecturer on Anatomy at the Charing Cross Hospital. Third Edition, with additional Illustrations. Crown 8vo. 5s.

BASTIAN.—Works by H. CHARLTON BASTIAN, M.D., F.R.S., Professor of Pathological Anatomy in University College, London, &c.:—
THE BEGINNINGS OF LIFE: Being some Account of the Nature, Modes of Origin, and Transformations of Lower Organisms. In Two Volumes. With upwards of 100 Illustrations. Crown 8vo. 28s.

EVOLUTION AND THE ORIGIN OF LIFE. Crown 8vo. 6s. 6d.

ON PARALYSIS FROM BRAIN DISEASE IN ITS COMMON FORMS. Illustrated. Crown 8vo. 10s. 6d.

"It would be a good thing if all such lectures were as clear, as systematic, and as interesting. . . . It is of interest not only to students but to all who make nervous diseases a study."—*Journal of Mental Science*.

CARTER.—Works by R. BRUDENELL CARTER, F.R.C.S., Ophthalmic Surgeon to St George's Hospital, &c.

A PRACTICAL TREATISE ON DISEASES OF THE EYE. With Illustrations. 8vo. 16s.

"No one will read Mr. Carter's book without having both his special and general knowledge increased."—*Lancet*.

ON DEFECTS OF VISION WHICH ARE REMEDIABLE BY OPTICAL APPLIANCES. Lectures at the Royal College of Surgeons. With numerous Illustrations. 8vo. 6s.

CHRISTIE.—CHOLERA EPIDEMICS IN EAST AFRICA. An Account of the several Diffusions of the Disease in that country from 1821 till 1872, with an Outline of the Geography, Ethnology, and Trade Connections of the Regions through which the Epidemics passed. By J. CHRISTIE, M.D., late Physician to H.H. the Sultan of Zanzibar. With Maps. 8vo. 15s. 3,000. 2, 78.

COOKE (JOSIAH P., Jun.)—FIRST PRINCIPLES OF CHEMICAL PHILOSOPHY. By JOSIAH P. COOKE, Jun., Ervine Professor of Chemistry and Mineralogy in Harvard College. Third Edition, revised and corrected. Crown 8vo. 12s.

COOKE (M. C.)—HANDBOOK OF BRITISH FUNGI, with full descriptions of all the Species and Illustrations of the Genera. By M. C. COOKE, M.A. Two Vols. Crown 8vo. 24s.

ELAM (C.)—A PHYSICIAN'S PROBLEMS. By CHARLES ELAM, M.D., M.R.C.P. Crown 8vo. 9s.

FLOWER (W. H.)—AN INTRODUCTION TO THE OSTEOLOGY OF THE MAMMALIA. Being the substance of the Course of Lectures delivered at the Royal College of Surgeons of England in 1870. By W. H. FLOWER, F.R.S., F.R.C.S., Hunterian Professor of Comparative Anatomy and Physiology. With numerous Illustrations. Second Edition, revised and enlarged. Crown 8vo. 10s. 6d.

FOSTER.—A TEXT BOOK OF PHYSIOLOGY, for the use of Medical Students and others. By MICHAEL FOSTER, M.D., F.R.S. Second Edition, revised and enlarged, with additional Plates and Illustrations. 8vo. 21s.

"Dr. Foster has combined in this work the conflicting desiderata in all text-books—comprehensiveness, brevity, and clearness. After a careful perusal of the whole work we can confidently recommend it, both to the student and the practitioner as being one of the best text-books on physiology extant."—*Lancet*.

FOSTER and LANGLEY.—AN ELEMENTARY COURSE OF PRACTICAL PHYSIOLOGY. By MICHAEL FOSTER, M.D., F.R.S., assisted by J. N. LANGLEY. Crown 8vo. 6s.

FOSTER and BALFOUR.—ELEMENTS OF EMBRYOLOGY. By MICHAEL FOSTER, M.D., F.R.S., and F. M. BALFOUR, M.A., Fellow of Trinity College, Cambridge. With numerous Illustrations. Part I. Crown 8vo. 7s. 6d.

"Both text and illustrations are alike remarkable for their clearness and freedom from error, indicating the immense amount of labour and care expended in the production of this most valuable addition to scientific literature."—*Medical Press and Circular*.

FOTHERGILL.—THE PRACTITIONER'S HANDBOOK OF TREATMENT: or THE PRINCIPLES OF RATIONAL THERAPEUTICS. By J. MILNER FOTHERGILL, M.D., M.R.C.P., Assistant Physician to the Victoria Park Chest Hospital, and to the West London Hospital. 8vo. 14s.

"We have every reason to thank the author for a practical and suggestive work."—*Lancet*.

FOX.—Works by WILSON FOX, M.D., Lond., F.R.C.P., F.R.S., Holme Professor of Clinical Medicine, University College, London, Physician Extraordinary to her Majesty the Queen, &c.:—

DISEASES OF THE STOMACH: being a new and revised Edition of "THE DIAGNOSIS AND TREATMENT OF THE VARIETIES OF DYSPEPSIA." 8vo. 8s. 6d.

ON THE ARTIFICIAL PRODUCTION OF TUBERCLE IN THE LOWER ANIMALS. With Coloured Plates. 4to. 5s. 6d.

ON THE TREATMENT OF HYPERPYREXIA, as Illustrated in Acute Articular Rheumatism by means of the External Application of Cold. 8vo. 2s. 6d.

GALTON (D.).—AN ADDRESS ON THE GENERAL PRINCIPLES WHICH SHOULD BE OBSERVED IN THE CONSTRUCTION OF HOSPITALS. By DOUGLAS GALTON, C.B., F.R.S. Crown 8vo. 3s. 6d.

GRIFFITHS.—LESSONS ON PRESCRIPTIONS AND THE ART OF PRESCRIBING. By W. HANSEL GRIFFITHS, Ph.D., L.R.C.P.E. New Edition. 18mo. 3s. 6d.

"We recommend it to all students and junior members of the profession who desire to understand the art of prescribing."—*Medical Press*.

HANBURY.—SCIENCE PAPERS, chiefly Pharmacological and Botanical. By DANIEL HANBURY, F.R.S. Edited with Memoir by JOSEPH INCE, F.L.S., F.C.S. 8vo. 14s.

HOOD (Wharton.).—ON BONE-SETTING (so-called), and its Relation to the Treatment of Joints Crippled by Injury, Rheumatism, Inflammation, &c., &c. By WHARTON P. HOOD, M.D., M.R.C.S. Crown 8vo. Illustrated. 4s. 6d.

"Dr. Hood's book is full of instruction, and should be read by all surgeons."—*Medical Times*.

HOOKE (Dr.).—THE STUDENT'S FLORA OF THE BRITISH ISLANDS. By Sir J. D. HOOKE, K.C.S.I., C.B., M.D., D.C.L., President of the Royal Society. Second Edition, revised and corrected. Globe 8vo. 10s. 6d.

HUMPHRY.—Works by G. M. HUMPHRY, M.D., F.R.S., Professor of Anatomy in the University of Cambridge, and Honorary Fellow of Downing College :—

THE HUMAN SKELETON (including the Joints). With 260 Illustrations drawn from Nature. Medium 8vo. 28s.

OBSERVATIONS IN MYOLOGY. Illustrated. 8vo. 6s.

THE HUMAN FOOT AND HAND. Illustrated. Fcap. 8vo. 4s. 6d.

HUXLEY and MARTIN.—A COURSE OF PRACTICAL INSTRUCTION IN ELEMENTARY BIOLOGY. By T. H. HUXLEY, LL.D. Sec. R.S., assisted by H. N. MARTIN, M.B., D.Sc. Second Edition, revised. Crown 8vo. 6s.

"To intending medical students this book will prove of great value."—*Lancet*.

HUXLEY (Professor).—LESSONS IN ELEMENTARY PHYSIOLOGY. By T. H. HUXLEY, LL.D., F.R.S. With numerous Illustrations. New Edition. 18mo. cloth. 4s. 6d.

LANKESTER.—COMPARATIVE LONGEVITY IN MAN AND THE LOWER ANIMALS. By E. RAY LANKESTER B.A. Crown 8vo. 4s. 6d.

LEISHMAN.—A SYSTEM OF MIDWIFERY, including the Diseases of Pregnancy and the Puerperal State. By WILLIAM LEISHMAN, M.D., Regius Professor of Midwifery in the University of Glasgow; Physician to the University Lying-in Hospital; Fellow and late Vice-President of the Obstetrical Society of London, &c., &c. 8vo. Illustrated. Second and Cheaper Edition. 21s.

MACLAGAN.—THE GERM THEORY APPLIED TO THE EXPLANATION OF THE PHENOMENA OF DISEASE. By T. MACLAGAN, M.D. 8vo. 10s. 6d.

"We think it well that such a book as this should be written. It places before the reader in clear and unmistakable language what is meant by the germ theory of disease."—*Lancet*.

MACNAMARA.—A HISTORY OF ASIATIC CHOLERA. By C. MACNAMARA, F.C.U., Surgeon to Westminster Hospital. Crown 8vo. 10s. 6d.

"A very valuable contribution to medical literature, and well worthy of the place which it is sure to assume as the standard work on the subject."—*Medical Examiner*.

MACPHERSON.—Works by JOHN MACPHERSON, M.D. :—

THE BATHS AND WELLS OF EUROPE: their Action and Uses. With Notices of Climatic Resorts and Diet Cures. With a Map. New Edition, revised and enlarged. Extra fcap. 8vo. 6s. 6d.

OUR BATHS AND WELLS: The Mineral Waters of the British Islands. With a List of Sea-Bathing Places. Extra fcap. 8vo. 3s. 6d.

MANSFIELD (C. B.)—A THEORY OF SALTS. A Treatise on the Constitution of Bipolar (two-membered) Chemical Compounds. By the late CHARLES BLACHFORD MANSFIELD. Crown 8vo. 14s.

MAUDSLEY.—Works by HENRY MAUDSLEY, M.D., Professor of Medical Jurisprudence in University College, London :—

BODY AND MIND: An Inquiry into their Connection and Mutual Influence, specially in reference to Mental Disorders: being the Gulstonian Lectures for 1870. Delivered before the Royal College of Physicians. New Edition, with Psychological Essays added. Crown 8vo. 6s. 6d.

THE PHYSIOLOGY OF MIND. Being the First Part of a Third Edition, revised, enlarged, and in great part re-written, of "The Physiology and Pathology of Mind." Crown 8vo. 10s. 6d.

THE PATHOLOGY OF MIND.

[In preparation.]

MIALI.—STUDIES IN COMPARATIVE ANATOMY. No. I. The Skull of the Crocodile. By L. C. MIALI, Professor of Biology in the Yorkshire College of Science. 8vo. 2s. 6d.

MIVART (St. George).—Works by ST. GEORGE MIVART, F.R.S., &c., Lecturer in Comparative Anatomy at St. Mary's Hospital :—

ON THE GENESIS OF SPECIES. Second Edition, to which notes have been added in reference and reply to Darwin's "Descent of Man." With numerous Illustrations. Crown 8vo. 9s.

LESSONS IN ELEMENTARY ANATOMY. With upwards of 400 Illustrations. 18mo. 6s. 6d.

"It may be questioned whether any other work on anatomy contains in like compass so proportionately great a mass of information."—*Lancet*.

MORTON.—THE TREATMENT OF SPINA BIFIDA BY A NEW METHOD. By J. MORTON, M.D., Professor of Materia Medica, Anderson's University, and Surgeon and Clinical Lecturer in the Glasgow Royal Infirmary. With Illustrations. Crown 8vo. 5s.

OLIVER.—LESSONS IN ELEMENTARY BOTANY. By DANIEL OLIVER, F.R.S., F.L.S., Professor of Botany in University College, London, and Keeper of the Herbarium and Library of the Royal Gardens, Kew. With nearly 200 Illustrations. New Edition. 18mo. cloth. 4s. 6d.

PARKER and BETTANY.—THE MORPHOLOGY OF THE SKULL. By W. K. PARKER, F.R.S., Hunterian Professor, Royal College of Surgeons, and G. T. BETTANY, M.A., B.Sc., Lecturer on Botany in Guy's Hospital Medical School. Crown 8vo. 10s. 6d.

PETTIGREW.—THE PHYSIOLOGY OF THE CIRCULATION IN PLANTS, IN THE LOWER ANIMALS, AND IN MAN. By J. BELL PETTIGREW, M.D., F.R.S., etc. Illustrated by 150 Woodcuts. 8vo. 12s.

"A more original, interesting, exhaustive, or comprehensive treatise on the circulation and the circulatory apparatus in plants, animals, and man, has never, we are certain, been offered for the acceptance of the anatomist, physiologist or student of medicine."—*Veterinary Journal*.

PIFFARD.—AN ELEMENTARY TREATISE ON DISEASES OF THE SKIN, for the Use of Students and Practitioners. By H. G. PIFFARD, M.D., Professor of Dermatology in the University of the City of New York, &c. With Illustrations. 8vo. 16s.

RADCLIFFE.—Works by CHARLES BLAND RADCLIFFE, M.D., F.R.C.P., Physician to the Westminster Hospital, and to the National Hospital for the Paralysed and Epileptic:—

VITAL MOTION AS A MODE OF PHYSICAL MOTION. Crown 8vo. 8s. 6d.

PROTEUS: OR UNITY IN NATURE. Second Edition. 8vo. 7s. 6d.

RANSOME.—ON STETHOMETRY. Chest Examination by a more Exact Method with its Results. With an Appendix on the Chemical and Microscopical Examination of Respired Air. By ARTHUR RANSOME, M.D. With Illustrations. 8vo. 10s. 6d.

We can recommend his book not only to those who are interested in the graphic method, but to all who are specially concerned in the treatment of diseases of the chest."—*British Medical Journal*.

REYNOLDS (J. R.)—A SYSTEM OF MEDICINE. Vol. I. Edited by J. RUSSELL REYNOLDS, M.D., F.R.S. London. Second Edition. 8vo. 25s.

Part I. General Diseases, or Affections of the Whole System. § I.—Those determined by agents operating from without, such as the exanthemata, malarial diseases, and their allies. § II.—Those determined by conditions existing within the body, such as Gout, Rheumatism, Rickets, etc. Part II. Local Diseases, or Affections of Particular Systems. § I.—Diseases of the Skin.

A SYSTEM OF MEDICINE. Vol. II. Second Edition. 8vo. 25s.

Part II. Local Diseases (continued). § I.—Diseases of the Nervous System. A. General Nervous Diseases. B. Partial Diseases of the Nervous System. 1. Diseases of the Head. 2. Diseases of the Spinal Column. 3. Diseases of the Nerves. § II.—Diseases of the Digestive System. A. Diseases of the Stomach.

A SYSTEM OF MEDICINE. Vol. III. 8vo. 25s.

Part II. Local Diseases (continued). § II.—Diseases of the Digestive System (continued). B. Diseases of the Mouth. C. Diseases of the Fauces, Pharynx, and Oesophagus. D. Diseases of the Intestines. E. Diseases of the Peritoneum. F. Diseases of the Liver. G. Diseases of the Pancreas. § III.—Diseases of the Respiratory System. A. Diseases of the Larynx. B. Diseases of the Thoracic Organs.

A SYSTEM OF MEDICINE. Vol. IV. Diseases of the Heart. 8vo. 21s.

Part II. Local Diseases (continued). § IV.—Diseases of the Organs of Circulation. A. The Heart:—Weight and Size of the Heart—Position and Form of the Heart and Great Vessels—Malpositions of the Heart—Lateral or Partial Aneurism of the Heart—Adventitious Products in the Heart—Pneumo-Pericardium—Pericarditis—Adherent Pericardium—Endocarditis—Carditis—Hydropericardium—Angina Pectoris and Allied States; including certain kinds of Sudden Death—Diseases of the Valves of the Heart—Atrophy of the Heart—Hypertrophy of the Heart—Dilatation of the Heart—Fatty Diseases of the Heart—Fibroid Disease of the Heart.

A SYSTEM OF MEDICINE. Vol. V.

[In the Press.

RICHARDSON.—Works by B. W. RICHARDSON, M.D., F.R.S.:—

DISEASES OF MODERN LIFE. Fifth and Cheaper Edition. Crown 8vo. 6s.

"The book is in a remarkable degree original, always interesting, often singularly graphic."—*Times*.

ON ALCOHOL. New Edition. Crown 8vo. 1s.

HYGEIA, A CITY OF HEALTH. Crown 8vo. 1s.

THE FUTURE OF SANITARY SCIENCE. Crown 8vo. 1s.

ROLLESTON.—THE HARVEIAN ORATION, 1873. By GEORGE ROLLESTON, M.D., F.R.S., Linacre Professor of Anatomy and Physiology, and Fellow of Merton College, in the University of Oxford. Crown 8vo. 2s. 6d.

ROSCOE.—Works by HENRY ROSCOE, F.R.S., Professor of Chemistry in Owens College, Manchester :—

LESSONS IN ELEMENTARY CHEMISTRY, INORGANIC AND ORGANIC. With numerous Illustrations, and Chromolithographs of the Solar Spectrum and of the Alkalies and Alkaline Earths. New Edition. 18mo. cloth. 4s. 6d.

CHEMICAL PROBLEMS, adapted to the above. By Professor T. E. THORPE, M.D., F.R.S.E., with Preface by Professor Roscoe. Fifth Edition, with Key. 18mo. 2s.

SPECTRUM ANALYSIS. Six Lectures, with Appendices, Engravings, Maps, and Chromolithographs. Third Edition. Royal 8vo. 21s.

ROSCOE and SCHORLEMMER.—A TREATISE ON CHEMISTRY. By Professors ROSCOE and SCHORLEMMER. Vol. I. The Non-Metallic Elements. With Numerous Illustrations and Portrait of Dalton. 8vo. 21s. [Vol. II. in the Press.

SCHORLEMMER.—A MANUAL OF THE CHEMISTRY OF THE CARBON COMPOUNDS, OR ORGANIC CHEMISTRY. By C. SCHORLEMMER, F.R.S., Lecturer in Organic Chemistry in Owens College, Manchester. 8vo. 14s.

SEATON.—A HANDBOOK OF VACCINATION. By EDWARD C. SEATON, M.D., Medical Inspector to the Privy Council. Extra fcap. 8vo. 5s. 6d.

SEILER.—MICRO-PHOTOGRAPHS IN HISTOLOGY, Normal and Pathological. By CARL SEILER, M.D., in conjunction with J. GIBBONS HUNT, M.D., and J. G. RICHARDSON, M.D.

This publication is intended to replace the microscope, as far as possible, for those physicians who have neither opportunity nor leisure to make observations for themselves ; and also to furnish microscopists, for comparison, correct representations of typical specimens in the domain of normal and pathological histology. The work is issued in twelve numbers, each containing at least four plates, with descriptive letterpress. In 4to., price 2s. 6d. each number.

SPENDER.—THERAPEUTIC MEANS FOR THE RELIEF OF PAIN. Being the Prize Essay for which the Medical Society of London awarded the Fothergillian Gold Medal in 1874. By JOHN KENT SPENDER, M.D., Lond., Surgeon to the Mineral Water Hospital, Bath. 8vo. 8s. 6d.

STEWART (B.).—LESSONS IN ELEMENTARY PHYSICS. By BALFOUR STEWART, F.R.S., Professor of Natural Philosophy in Owens College, Manchester. With Numerous Illustrations and Chromoliths of the Spectra of the Sun, Stars, and Nebulae. New Edition. 18mo. 4s. 6d.

PRIMER OF PHYSICS. By the same Author Illustrated. 13mo. 1s.

WEST.—HOSPITAL ORGANISATION. With special reference to the organisation of Hospitals for Children. By CHARLES WEST, M.D. Founder of, and for twenty-three years Physician to, the Hospital for Sick Children. Crown 8vo. 2s. 6d.

WURTZ.—A HISTORY OF CHEMICAL THEORY from the Age of Lavoisier down to the present time. By AD. WURTZ. Translated by HENRY WATTS, F.R.S. Crown 8vo. 6s.

NATURE SERIES.

THE TRANSIT OF VENUS. By Professor G. FORBES. With numerous Illustrations. Crown 8vo. 3s. 6d.

THE SPECTROSCOPE AND ITS APPLICATIONS. By J. NORMAN LOCKYER, F.R.S. With Coloured Plate and numerous Illustrations. Second Edition. Crown 8vo. 3s. 6d.

THE ORIGIN AND METAMORPHOSES OF INSECTS. By Sir JOHN LUBBOCK, M.P., F.R.S., D.C.L. With numerous Illustrations. Second Edition. Crown 8vo. 3s. 6d.

ON BRITISH WILD FLOWERS CONSIDERED IN RELATION TO INSECTS. With numerous Illustrations. Second Edition. Crown 8vo. 4s. 6d.

THE COMMON FROG. By St. GEORGE MIVART, F.R.S. With numerous Illustrations. Crown 8vo. 3s. 6d.

POLARIZATION OF LIGHT. By W. SPOTTISWOODE, F.R.S. With numerous Illustrations. Second Edition. Crown 8vo. 3s. 6d.

SCIENCE PRIMERS.

Under the joint Editorship of Professors HUXLEY, ROSCOE, and BALFOUR STEWART.

CHEMISTRY. By H. E. ROSCOE, Professor of Chemistry in Owen's College, Manchester. With numerous Illustrations. New Edition, with Questions. 18mo. 1s.

PHYSICS. By BALFOUR STEWART, Professor of Natural Philosophy in Owens College, Manchester. With numerous Illustrations. New Edition, with Questions. 18mo. 1s.

PHYSICAL GEOGRAPHY. By ARCHIBALD GEIKIE, F.R.S., Murchison Professor of Geology and Mineralogy at Edinburgh. With numerous Illustrations. New Edition, with Questions. 18mo. 1s.

GEOLOGY. By Professor GEIKIE, F.R.S. With numerous Illustrations. New Edition. 18mo. cloth. 1s.

PHYSIOLOGY. By MICHAEL FOSTER, M.D., F.R.S. With numerous Illustrations. New Edition. 18mo. 1s.

ASTRONOMY. By J. NORMAN LOCKYER, F.R.S. With numerous Illustrations. New Edition. 18mo. 1s.

BOTANY. By Sir J. D. HOOKER, K.C.S.I., C.B., P.R.S. With numerous Illustrations. New Edition. 18mo. 1s.

LOGIC. By Professor STANLEY JEVONS. New Edition. 18mo. 1s.

INTRODUCTORY. By Professor HUXLEY. *[In Preparation]*

PRICE EIGHTEENPENCE, MONTHLY,

THE PRACTITIONER:**A Journal of Therapeutics and Public Health.**

EDITED BY

T. LAUDER BRUNTON, M.D., F.R.S.,*Fellow of the Royal College of Physicians;**Assistant Physician to St. Bartholomew's Hospital; and Lecturer on Materia Medica and Therapeutics in St. Bartholomew's Hospital School.*

CONTENTS.

Original Communications—Reviews of Books—Clinic of the Month—Extracts from British and Foreign Journals—Notes and Queries—Bibliography—and the Public Health Department.

No. I. IN FEBRUARY, 1878.

THE JOURNAL OF PHYSIOLOGY.

EDITED

(With the co-operation in England of Prof. A. GAMGEE, F.R.S., of Manchester; Prof. W. RUTHERFORD, F.R.S., of Edinburgh; Prof. J. B. SANDERSON, F.R.S., of London; and in America of Prof. H. P. BOWDITCH, of Boston; Prof. H. N. MARTIN, of Baltimore) by

DR. MICHAEL FOSTER, F.R.S.,*Of Trinity College, Cambridge.*

It is proposed to publish it in parts, not at rigidly fixed times, but according to the supply of material. Every effort, however, will be made to prevent any unnecessary irregularity in the appearance of the successive parts. About four or six parts, the exact number depending on the size of the several parts, will form a volume of about 500 pages. The volume will not necessarily coincide with the year; its issue, like that of the constituent parts, will depend on the abundance of contributions.

The subscription-price for the volume, *post free*, will be, when paid in advance—

For Great Britain or America £1 1s., or \$5.25 (gold).

Each part, as well as each volume, may also be obtained in the usual way through the trade, at the rate of £1 11s. 6d. per volume, the exact price of each part, dependent on its size, &c., being marked on the cover.

Published every Thursday, price 4d.; Monthly Parts, 1s. 4d. and 1s. 8d.; Half-Yearly Volumes, 10s. 6d.

NATURE:*AN ILLUSTRATED JOURNAL OF SCIENCE.*

NATURE expounds in a popular and yet authentic manner, the GRAND RESULTS OF SCIENTIFIC RESEARCH, discussing the most recent scientific discoveries, and pointing out the bearing of Science upon civilisation and progress, and its claims to a more general recognition, as well to a higher place in the educational system of the country.

It contains original articles on all subjects within the domain of Science; Reviews setting forth the nature and value of recent Scientific Works; Correspondence Columns, forming a medium of Scientific discussion and of intercommunication among the most distinguished men of Science; Serial Columns, giving the gist of the most important papers appearing in Scientific Journals, both Home and Foreign; Transactions of the principal Scientific Societies and Academies of the World; Notes, etc.

Accession no.

Tuke, Daniel H.

Author

Insanity in ancient
and modern life.

Call no.

19th RC 601
Cent 1878 T

